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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

February 24, 2006

MEMORANDUM

SUBJECT: April, 2005 El Dorado Asbestos in Soil Performance Evaluation Sample Study

FROM: Stephen Remaley  
Chemist/Superfund Regional CLP Project Officer  
Quality Assurance Office (PMD-3)

TO: Jere Johnson  
Site Assessment Manager  
States, Tribes, and Site Assessment Office (SFD 9-1)

The purpose of this memorandum is to address qualification comments in data validation reviews generated by Trillium Corp. for the April, 2005 asbestos in soil multi-laboratory performance evaluation studies for the El Dorado County site. Data validation comments in the subject data reviews suggested that sample results produced by EPA contracted laboratories may be biased high based on extrapolation of results for PE samples analyzed in the same time frame as the site samples where PE results were reported that were higher than the known or intended spike levels. A review of the PE results shows that this not true. A summary of performance evaluation sample (PE) results for the asbestos in soil multi-laboratory conducted in April, 2005 for the El Dorado County site along with acceptance windows is attached. Please note that EPA contracted laboratory PE results fall within the expected acceptance windows for the PE samples.

I have discussed the data review comments with Lisa Johnson with Ecology and Environment and learned that the data review comments were generated by reviews prior to receipt of the PE scoring results. The comments referring to high bias are invalid and should be disregarded. The PE ranges which were provided by the vendor of the PE samples, Research Triangle Institute (RTI) are typical ranges utilized for proficiency testing programs for NVLAP, AIHA, and the US Navy.

Please contact me at 415-972-3802 if you have any questions.

cc: Karen Ladd

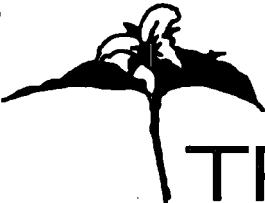
Attachment

**Asbestos in Soil****Performance Evaluation Sample****Multi-laboratory Study****April 2005**

Revised October 11, 2005

Sample	Conc.	RTI International Originator of Samples		EMSL Original		EMSL Re-Analysis*		Asbestos TEM		EMS Laboratories		
		PLM LCL	PLM UCL	PLM	TEM Qualitative Confirmation Only	PLM	TEM Qualitative Confirmation Only	PLM	TEM Qualitative Confirmation Only	PLM Point Count	PLM Visual Count	TEM Qualitative Confirmation Only
EDH-ZP2	0.5% Chrysotile	.1%	4%	3% Chrysotile	Chrysotile	3% Chrysotile	NA	3% Chrysotile	Chrysotile	2% Chrysotile	2% Chrysotile	Chrysotile
	0.5% Tremolite	0.1%	5%	10% Wollastonite	None	5% Fibrous (Other)	Tremolite	2% Tremolite	Tremolite	3% Tremolite	3% Tremolite	None
EDH-ZP3	2% Chrysotile	>1	10%	5% Chrysotile	Chrysotile	5% Chrysotile	NA	8% Chrysotile	Chrysotile	4% Chrysotile	4.75% Chrysotile	Chrysotile
	2% Tremolite	>1	10%	10% Wollastonite	None	5% Fibrous (Other)	Tremolite	6% Tremolite	Tremolite	3% Tremolite	3.25% Tremolite	None

\*Only amphiboles re-analyzed. EMSL also found "Libby Amphibole" in both samples at concentrations of 0.3936% and 0.3769% for ZP2 and ZP3 respectively.



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July 6, 2005

Via FedEx

Ms. Lisa M. Johnson  
ecology and environment, inc.  
350 Sansome Street, Suite 300  
San Francisco, California 94104

Dear Lisa:

Please find enclosed the data validation reports and laboratory data packages for the samples analyzed by Asbestos TEM Laboratories from the El Dorado Hills Site. These include laboratory reports numbered 049351, 049352, 049487, and 049488. This shipment also includes the project QAPP, the Field Sampling Plan, and the data the laboratory provided for the proficiency testing.

If you have any questions please do not hesitate to contact me at (302) 992-9737.

Sincerely,

Denise Shepperd  
QA Manager

DAS/hrs  
Enclosures  
Cc: Liz Dickinson, Trillium (w/o enclosures)

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## Data Validation Report

TDD No. 09-04-01-0011  
PAN: 001275.0440.01TA  
Site: El Dorado Hills, California  
Laboratory: Asbestos TEM Laboratories, Inc.  
Reviewer: Denise A. Shepperd, Trillium, Inc.  
Date: June 29, 2005

### I. Case Summary

#### SAMPLE INFORMATION:

Samples IDs: NYB-S03-100804; NYB-SS04-100804; NYB-SS03-100804; NYB-SS02-100804; NYB-S104-100804; NYB-S10-100804; NYB-S09-100804; NYB-S08-100804; NYB-S07-100804; NYB-S06-100804; NYB-SS05-100804; NYB-S04-100804; NYB-SS104-100804; CPS-CS01-100804; CPS-S101-100804; CPS-S07-100804; CPS-S06-100804; CPS-S05-100804; CPS-S04-100804; CPS-S03-100804; CPS-S02-100804; NYB-S05-100804; NYT-SC1-100804; NYT-SF3-100804; NYT-SF2-100804; NYT-SF1-100804; NYT-S1E1-100804; NYT-SE3-100804; NYT-SE2-100804; NYT-SE1-100804; NYT-SD3-100804; NYT-SD2-100804; NYB-SS06-100804; NYT-SC3-100804; NYT-SG1-100804; NYT-SB2-100804; NYT-SB1-100804; NYT-SA3-100804; NYT-SA2-100804; NYT-SA1-100804; NYB-CSS01-100804; NYB-CS01-100804; NFB-SS06-100804; NYB-SS07-100804; NYT-SD1-100804; SFB-SS07-100804; CPS-S01-100804; NFB-S07-100804; NFB-S06-100804; NFB-S05-100804; NFB-S04-100804; NFB-S03-100804; NFB-S02-100804; NFB-S01-100804; NFB-SS07-100804; SFB-SS107-100804; NYB-S02-100804; SFB-SS06-100804

Matrix: 58 Soil Samples  
Analysis: Asbestos by Polarized Light Microscopy  
Method: NIOSH 9002  
Collection Date: October 8, 2004  
Sample Receipt Date: April 15, 2005  
Analysis Dates: April 20 through 22, 2005 and May 2, 2005

#### FIELD QC:

Trip Blanks (TB): None  
Field Blanks (FB): None  
Equipment Blanks (EB): None  
Background Samples (BG): None  
Field Duplicates : NYB-S104-100804 and NYB-S04-100804; NYB-SS104-100804 and NYB-SS04-100804; NYT-S1E1-100804 and NYT-SE1-100804; CPS-S101-100804 and CPS-S01-100804; and SFB-SS107-100804 and SFB-SS07-100804

**TABLES:**

- 1A: Analytical Results with Qualifications
- 1B: Data Qualifier Definitions for Inorganic Data Review

**SAMPLING ISSUES:**

Three chain of custody records received by the laboratory with the delivery of the samples included all of the samples identified in this data set. According to these records, the samples were collected on 10/8/04 but were not relinquished until 12/7/04. No indication is made of the disposition of the samples during this period of time and from the documentation provided, the custodian of the samples during this time cannot be determined. A second set of "relinquished and received" signatures appear for "all/return" of the samples; samples were relinquished on 3/11/05 and received on 4/12/05. There is no indication of the disposition of the samples during the month between these dates. A third set of relinquished and received signatures appears, both for the date 4/15/05. There is no indication what this transfer represented on the COC records, however, the laboratory documentation indicates that the samples were received on 4/15/05 from FedEx. This would indicate that FedEx delivered the sample on the same day they were shipped. COC records should provide sufficient information (sampler initials, affiliations for all parties, and/or reasons for transfer). These documents should support every transfer of the samples from the day of collection to the day of return or disposal. The COC documents included with these samples do not fulfill this purpose.

**VALIDATION PARAMETERS AND COMMENTS:****I. Holding Times, Preservation and Sample Integrity**

This parameter is evaluated to ensure that sample custody is documented from collection through analysis, samples are analyzed within the recommended holding time, and that no alteration in sample content has occurred during sample shipment, handling, and storage.

There is no established holding time or storage condition for asbestos samples.

According to the laboratory log-in report, all samples were received in excellent condition from FedEx. No airbill number or copy of the applicable airbill was included in the data package.

**II. Calibration**

The analyses of materials of known content ensures that identification and quantitation of analytes will be accurate for all samples. Review of the documentation provided for appropriate calibration determines whether or not the analytical results reported by the laboratory are valid and supported by the data.

Asbestos TEM Laboratories, Inc., participates in NVLAP. Documentation of the laboratory's current certification for EPA Method 600/M4-82-020 and "relevant requirements of ISO 9002:1994," which include PLM analyses for solid materials, was included in the data package. The certificate is effective through the end of June, 2005. Should additional information regarding the laboratory's ability to accurately identify and quantify asbestos be desired, results and supporting data for samples from this PE program should be obtained from the laboratory.

Logbook pages including daily microscope checks for dates 4/25/05, 4/26/05, 4/27/05, 4/28/05, 5/3/05, and 5/4/05 were included. Analyses of the samples in this data set were performed on 4/21/05 through 4/22/05, and 5/2/05. Microscope checks, which are required on each day before samples are analyzed, were not documented for the days

on which the samples in this data set were analyzed. Monthly dispersive oil calibration documentation was provided on a separate logbook page. According to the documentation the applicable calibration was performed on 4/12/05.

Two performance evaluation samples, prepared for this project by RTI, were submitted to the laboratory. The PE samples were analyzed on 3/4/05. No documentation of microscope or other QC checks was included with the PE sample data. Two sets of raw data were included, representing identification and visual estimation performed by two different analysts. The two PE samples were generated by RTI at two different asbestos concentrations. The first sample contained tremolite and chrysotile asbestos, each at 0.5% (1% total asbestos). The second contained each of these two asbestos types at 2% (4% total asbestos). The laboratory's results for total asbestos for these two samples were 5% and 14%, respectively. These are the only reference materials presented with this data set. The results the laboratory reported for these PEs are greater than three to five times the prepared concentrations, indicating the potential for high bias in positive results. Results for all of the samples in this data set were qualified as estimated (J) on this basis.

### **III. Blanks**

Sample matrices known to be devoid of the analytes of interest (method blanks) are prepared and analyzed with each analytical batch. Evaluation of this parameter ensures that contamination introduced during preparation and analyses is not attributed to the field samples. Other blanks may be generated in the field or laboratory to ensure that no contamination is introduced during sampling and/or storage.

A total of 16 laboratory blanks (all included in data set 049488) were prepared and analyzed with the sample batches associated with this data set (049351, 049352, 049487, and 049488) and represented both the drying and grinding steps of sample preparation. No asbestos structures were identified in any of these sixteen blanks. Two of these laboratory blanks, LAB-BL09-101104 and LAB-BL13-101104 were analyzed as laboratory duplicate pairs. Results for the duplicates in both cases were ND and <1%. Because results for all of the field samples were previously qualified as estimated based on the high bias observed in the reference material, no additional action was taken on the basis of blank results.

No field-generated blanks were included with this data set.

### **IV. Spiked Samples**

The analytes of interest are added in known concentrations to like-matrix blanks or authentic field samples before preparation. This parameter is evaluated in order to assess the laboratory's ability to preserve and recover the compounds of interest.

See Section II for a discussion of the PE (spiked) samples submitted with this data set.

No other spiked analyses were performed with this sample set.

### **V. Duplicate/Replicate Samples**

Results for duplicate/replicate samples are evaluated to assess the laboratory's precision for the analytes of interest in the applicable sample matrix.

Five field duplicate pairs (NYB-S104-100804 and NYB-S04-100804; NYB-SS104-100804 and NYB-SS04-100804; NYT-S1E1-100804 and NYT-SE1-100804; CPS-S101-100804 and CPS-S01-100804; and SFB-SS107-100804 and SFB-SS07-100804) were included with this data set. Results for two of the pairs (NYB-SS04-100804

and NYB-SS104-100804 and SFB-SS07-100804 and SFB-SS107-100804) showed excellent agreement. For the other three duplicate pairs one sample was reported to contain less than one percent (<1%) and the other was reported to contain one to five percent (1-5%). Results for these samples were previously qualified as estimated based on the high bias observed in the PE samples and no further action was taken by the validator on the basis of duplicate sample results.

The laboratory prepared and analyzed 14 laboratory duplicate sample pairs. Of these all but one pair had identical results. The remaining duplicate pair, SFB-SS06-100804 and its duplicate, had results of ND and < 1%. The laboratory reported the higher of the two results, which is appropriate for these analyses. No action was warranted by the validator.

## **VI. Identification**

Identification of asbestos is dependent on sample preparation techniques, analyst training, instrument operation, and data interpretation. Comparison with results from known standards is used to evaluate the accuracy of the structure identification for field samples.

Chrysotile and tremolite asbestos were correctly identified in the PE samples (see Section II). Only actinolite was identified in the field samples. Identification was based on the various optical properties of the asbestos fibers and was correctly performed, based on review of the raw data. Values for the optical properties recorded by the laboratory on the PLM data sheets were identical for all samples in which this asbestos type was identified.

The laboratory passed the criteria for NVLAP, based on the documentation provided, however, no actual sample results or raw data for the analyses of NVLAP PE samples were provided.

Analysis of the project PE samples was performed by an analyst with the initials DV and a second whose signature was illegible. Analyses of the field samples were performed by analysts with the initials SF and MB. It is recommended that documentation be included in the data packages for each sample batch that support the correct identification of asbestos by the analysts who perform the analyses on the field samples.

## **VII. Visual Estimation and Reported Detection Limits**

Raw data documentation is reviewed to ensure that all reported results and detection limits are correctly calculated, accurately reported, and supported by the raw data.

The laboratory's results for the two PE samples provided in association with this project were within the acceptance ranges suggested by RTI, however, a consistent tendency toward over estimation was observed. RTI's suggested range for the first PE (0.5% each of tremolite and chrysotile) were 0.1 to 5% and 0.1 to 4%, respectively. The laboratory found 2% tremolite and 3% chrysotile. If reported in the same manner as the field samples, this would result in a reported total asbestos content of 1-5%. RTI's suggested range for the second PE (2% each of tremolite and chrysotile) was >1 to 10% for both asbestos types. The laboratory reported results of 6% tremolite and 8% chrysotile, a total asbestos content of 14%.

Field sample results for PLM analyses associated with this project were reported by the laboratory as ND (not detected), <1%, or 1-5% total asbestos by weight. None of the field samples were reported with concentrations higher than the range 1-5%. Both of the PE sample true concentrations fell within these ranges. In the case of both PE samples, the laboratory's reported values show high bias, exceeding the true values by factors of three to five. Based on the indications of high bias in the only reference material analyzed and professional judgement, the validator qualified all positive sample results as estimated (J). The data user is cautioned that these results are likely biased high.



### **VIII. System Performance**

This parameter is evaluated to ensure that the laboratory analytical systems were functioning properly at the time of analyses and that methodology appropriate to the analyses were followed.

The analytical system appears to have been working satisfactorily at the time of these analyses, based on the documentation provided in this data package shipment.

### **IX. Documentation**

Data and documentation completeness is critical in providing support for the reported results. Problems encountered with the nature or quality of the data package documentation are addressed.

The COC documentation included in the data package does not adequately support the custody of the samples in the data set.

Documentation of microscope checks should be included for every day on which samples are analyzed.

### **COMMENTS:**

- A. Based on the indications of high bias in the only reference material analyzed in association with this data set, and on professional judgement, the validator qualified all positive sample results for these samples as estimated (J). The data user is cautioned that these results are likely biased high.

This report was prepared according to the specifications of the analytical method, NIOSH 9002, Asbestos (bulk) by PLM, the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 10/99, and Trillium, Inc.'s SOP No. 0497-06A, for Validation of Analytical Data: Inorganic Analytes.

**ANALYTICAL RESULTS**

**TABLE 1A**

Page 1 of 3

**TDD No.** 09-04-01-0011  
**PAN:** 001275.0440.01.TA  
**Site:** El Dorado Hills, California  
**Lab:** Asbestos TEM Laboratories, Inc.  
**Reviewer:** Denise A. Shepperd, Trillium, Inc.  
**Date:** June 29, 2005

**Analysis Type:** Soil Samples  
for Asbestos

**Results as Percentage Asbestos**

Station Location	D2			D1								
	NYB-S03-100804	NYB-SS04-100804	NYB-SS03-100804	NYB-SS02-100804	NYB-S104-100804							
Sample Lab I.D.	741-00023-001	741-00023-002	741-00023-003	741-00023-004	741-00023-005							
Date of Collection	10/8/04	10/8/04	10/8/04	10/8/04	10/8/04							
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	1-5%	J	A	1-5%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	D2			D1			D2			D1		
	NYB-S10-100804	NYB-S09-100804	NYB-S08-100804	NYB-S07-100804	NYB-S06-100804							
Sample Lab I.D.	741-00023-006	741-00023-007	741-00023-008	741-00023-009	741-00023-010							
Date of Collection	10/8/04	10/8/04	10/8/04	10/8/04	10/8/04							
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	D1			D2			D3			D4		
	NYB-SS05-100804	NYB-S04-100804	NYB-SS104-100804	CPS-CS01-100804	CPS-S101-100804							
Sample Lab I.D.	741-00023-011	741-00023-012	741-00023-013	741-00023-014	741-00023-015							
Date of Collection	10/8/04	10/8/04	10/8/04	10/8/04	10/8/04							
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	1-5%	J	A	1-5%	J	A	1-5%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	D1			D2			D3			D4		
	CPS-S07-100804	CPS-S06-100804	CPS-S05-100804	CPS-S04-100804	CPS-S03-100804							
Sample Lab I.D.	741-00023-016	741-00023-017	741-00023-018	741-00023-019	741-00023-020							
Date of Collection	10/8/04	10/8/04	10/8/04	10/8/04	10/8/04							
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	< 1%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 2 of 3

TDD No. **09-04-01-0011**  
 PAN: **001275.0440.01.TA**  
 Site: **El Dorado Hills, California**  
 Lab: **Asbestos TEM Laboratories, Inc.**  
 Reviewer: **Denise A. Shepperd, Trillium, Inc.**  
 Date: **June 29, 2005**

**Analysis Type: Soil Samples  
for Asbestos**

**Results as Percentage Asbestos**

Station Location	CPS-S02-100804 741-00023-021 10/8/04			NYB-S05-100804 741-00023-022 10/8/04			NYT-SC1-100804 741-00023-023 10/8/04			CPS-SF3-100804 741-00023-024 10/8/04			NYT-SF2-100804 741-00023-025 10/8/04		
Analyte	Result	Val	Com												
Percent Asbestos	1-5%	J	A	< 1%	J	A	1-5%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite														

Station Location	NYT-SF1-100804 741-00023-026 10/8/04			D3 NYT-SIE1-100804 741-00023-027 10/8/04			NYT-SE3-100804 741-00023-028 10/8/04			NYT-SE2-100804 741-00023-029 10/8/04			D3 NYT-SE1-100804 741-00023-030 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	< 1%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NYT-SD3-100804 741-00023-031 10/8/04			NYT-SD2-100804 741-00023-032 10/8/04			NYB-SS06-100804 741-00023-033 10/8/04			NYT-SC3-100804 741-00023-034 10/8/04			NYT-SG1-100804 741-00023-035 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	1-5%	J	A	1-5%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NYT-SB2-100804 741-00023-036 10/8/04			NYT-SB1-100804 741-00023-037 10/8/04			NYT-SA3-100804 741-00023-038 10/8/04			NYT-SA2-100804 741-00023-039 10/8/04			NYT-SA1-100804 741-00023-040 10/8/04		
Analyte	Result	Val	Com												
Percent Asbestos	1-5%	J	A												
Type	Actinolite														

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 3 of 3

**TDD No.** 09-04-01-0011  
**PAN:** 001275.0440.01.TA  
**Site:** El Dorado Hills, California  
**Lab:** Asbestos TEM Laboratories, Inc.  
**Reviewer:** Denise A. Shepperd, Trillium, Inc.  
**Date:** June 29, 2005

**Analysis Type:** Soil Samples  
for Asbestos

**Results as Percentage Asbestos**

Station Location	NYB-CSS01-100804 741-00023-041 10/8/04			NYB-CS01-100804 741-00023-042 10/8/04			NYB-SS06-100804 741-00023-043 10/8/04			NYT-SS07-100804 741-00023-044 10/8/04			NYT-SD1-100804 741-00023-045 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	< 1%	J	A	1-5%	J	A	1-5%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	SFB-SS07-100804 741-00023-046 10/8/04			D4 CPS-S01-100804 741-00023-047 10/8/04			NFB-S07-100804 741-00023-048 10/8/04			NFB-S06-100804 741-00023-049 10/8/04			NFB-S05-100804 741-00023-050 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	< 1%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NFB-S04-100804 741-00023-051 10/8/04			NFB-S03-100804 741-00023-052 10/8/04			NFB-S02-100804 741-00023-053 10/8/04			NFB-S01-100804 741-00023-054 10/8/04			D5 NFB-SS07-100804 741-00023-055 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com									
Percent Asbestos	1-5%	J	A	1-5%	J	A	< 1%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	D5 SFB-SS107-100804 741-00023-056 10/8/04			NYB-S02-100804 741-00023-057 10/8/04			SFB-SS06-100804 741-00023-058 10/8/04								
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	< 1%	J	A						
Type	Actinolite			Actinolite			Actinolite								

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.



**TABLE 1B**

**DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW**

The definitions of the following qualifiers are prepared in accordance with the document, "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 2/94.

- U The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit.
- L Indicates results which fall between the sample detection limit and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.
- R The data are unusable. The analyte was analyzed for, but the presence or absence of the analyte cannot be verified.
- UJ A combination of the "U" and "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.

### Data Validation Report

SFDD No. 09-04-01-0011  
 PAN: 001275.0440.01TA  
 Site: El Dorado Hills, California  
 Laboratory: Asbestos TEM Laboratories, Inc.  
 Reviewer: Denise A. Shepperd, Trillium, Inc.  
 Date: June 30, 2005

#### I. Case Summary

#### SAMPLE INFORMATION:

Samples IDs: SFB-SS05-100804; SFB-SS04-100804; SFB-SS03-100804; SFB-SS02-100804; SFB-SS01-100804; NYB-SS01-100804; NYB-S01-100804; SFB-CSS01-100804; SFB-CS01-100804; NYT-SC2-100804; NFB-SS05-100804; NFB-SS04-100804; NFB-SS03-100804; NFB-SS02-100804; NFB-SS01-100804; NFB-S110-100804; NFB-S10-100804; SFB-S10-100804; NFB-S08-100804; SFB-CS101-100804; NFB-S09-100804; SFB-S107-100804; SFB-S07-100804; SFB-S06-100804; SFB-S08-100804; SFB-S05-100804; SFB-S04-100804; SFB-S03-100804; SFB-S01-100804; NFB-CSS01-100804; SFB-S09-100804; NYT-S13-100804; NFB-CS01-100804; NYT-SJ2-100804; NYT-SJ1-100804; NYT-SI2-100804; NYT-SI1-100804; NYT-SIA2-100804; NYT-S1G2-100804; NYT-S104-100804; NYT-SB3-100804; NYT-CS02-100804; NYT-SH1-100804; NYT-SJ3-100804; NYT-CS101-100804; NYT-SG2-100804; NYT-SG3-100804; NYT-SH2-100804; NYT-SH3-100804; NYT-S01-100804; NYT-S02-100804; NYT-S03-100804; NYT-S04-100804; NYT-CS01-100804; SVB-S09-100904; DEM-S09-100904; DEM-S06-100904; DEM-S01-100904; and DEM-S02-100904

Matrix: 60 Soil Samples  
 Analysis: Asbestos by Polarized Light Microscopy  
 Method: NIOSH 9002  
 Collection Dates: October 8 and 9, 2004  
 Sample Receipt Date: April 15, 2005  
 Analysis Dates: April 25 and 26, 2005 and May 2, 2005

#### FIELD QC:

Trip Blanks (TB): None  
 Field Blanks (FB): None  
 Equipment Blanks (EB): None  
 Background Samples (BG): None  
 Field Duplicates : NFB-S10-100804 and NFB-S110-100804; SFB-CS01-100804 and SFB-CS101-100804; NYT-SG2-100804 and NYT-S1G2-100804; NYT-SA2-100804\* (\*in data set 049351) and NYT-S1A2-100804; NYT-S04-100804 and NYT-S104-100804; NYT-CS01-100804 and

NYT-CS101-100804; SFB-S07-100804 and SFB-S107-100804; and  
DEM-S06-100904 and DEM-S106-100904\* (\*in data set 049487)

**TABLES:**

- 1A: Analytical Results with Qualifications
- 1B: Data Qualifier Definitions for Inorganic Data Review

**SAMPLING ISSUES:**

Three chain of custody records received by the laboratory with the delivery of the samples included all of the samples identified in this data set. According to these records, the samples were collected on 10/8/04 and 10/9/04, but were not relinquished until 12/7/04. No indication is made of the disposition of the samples during this period of time and from the documentation provided, the custodian of the samples during this time cannot be determined. A second set of "relinquished and received" signatures appear for "all/return" of the samples; samples were relinquished on 3/11/05; no "received by" date or time were recorded for this transfer. A third set of relinquished and received signatures appears, for the dates 4/15/05 and 4/16/05, however, according to the dates recorded, the samples were received the day before they were relinquished. There is no indication what this transfer represented on the COC records, however, the laboratory documentation indicates that the samples were received on 4/15/05. COC records should provide sufficient information (sampler initials, affiliations for all parties, and/or reasons for transfer). These should support every transfer of the samples from the day of collection to the day of return or disposal. The COC documents included with these samples do not fulfill this purpose.

**VALIDATION PARAMETERS AND COMMENTS:****I. Holding Times, Preservation and Sample Integrity**

This parameter is evaluated to ensure that sample custody is documented from collection through analysis, samples are analyzed within the recommended holding time, and that no alteration in sample content has occurred during sample shipment, handling, and storage.

There is no established holding time or storage condition for asbestos samples.

According to the laboratory log-in report, all samples were received in excellent condition from "the client."

**II. Calibration**

The analyses of materials of known content ensures that identification and quantitation of analytes will be accurate for all samples. Review of the documentation provided for appropriate calibration determines whether or not the analytical results reported by the laboratory are valid and supported by the data.

Asbestos TEM Laboratories, Inc., participates in NVLAP. Documentation of the laboratory's current certification for EPA Method 600/M4-82-020 and "relevant requirements of ISO 9002:1994," which include PLM analyses for solid materials, was included in the data package. The certificate is effective through the end of June, 2005. Should additional information regarding the laboratory's ability to accurately identify and quantify asbestos be desired, results and supporting data for samples from this PE program should be obtained from the laboratory.

Logbook pages including daily microscope checks for dates 4/25/05, 4/26/05, 4/27/05, 4/28/05, 5/3/05, and 5/4/05 were included. Analyses of the samples in this data set were performed on 4/25/05 through 4/26/05 and 5/2/05. A microscope check, which is required on each day before samples are analyzed, was not documented for one of the days on which the samples in this data set were analyzed. Monthly dispersive oil calibration documentation

was provided on a separate logbook page. According to the documentation the applicable calibration was performed on 4/12/05.

Two performance evaluation samples, prepared for this project by RTI, were submitted to the laboratory. The PE samples were analyzed on 3/4/05. No documentation of microscope or other QC checks was included with the PE sample data. Two sets of raw data were included, representing identification and visual estimation performed by two different analysts. The two PE samples were generated by RTI at two different asbestos concentrations. The first sample contained tremolite and chrysotile asbestos, each at 0.5% (1% total asbestos). The second contained each of these two asbestos types at 2% (4% total asbestos). The laboratory's results for total asbestos for these two samples were 5% and 14%, respectively. These are the only reference materials presented with this data set. The results the laboratory reported for these PEs are greater than three to five times the prepared concentrations, indicating the potential for high bias in positive results. Results for all of the samples in this data set were qualified as estimated (J) on this basis.

### **III. Blanks**

Sample matrices known to be devoid of the analytes of interest (method blanks) are prepared and analyzed with each analytical batch. Evaluation of this parameter ensures that contamination introduced during preparation and analyses is not attributed to the field samples. Other blanks may be generated in the field or laboratory to ensure that no contamination is introduced during sampling and/or storage.

A total of 16 laboratory blanks (all included in data set 049488) were prepared and analyzed with the sample batches associated with this data set (049351, 049352, 049487, and 049488) and represented both the drying and grinding steps of sample preparation. No asbestos structures were identified in any of these sixteen blanks. Two of these laboratory blanks, LAB-BL09-101104 and LAB-BL13-101104 were analyzed as laboratory duplicate pairs. Results for the duplicates in both cases were ND and <1%. Because results for all of the field samples were previously qualified as estimated based on the high bias observed in the reference material, no additional action was taken on the basis of laboratory blank results.

No field-generated blanks were included with this data set.

### **IV. Spiked Samples**

The analytes of interest are added in known concentrations to like-matrix blanks or authentic field samples before preparation. This parameter is evaluated in order to assess the laboratory's ability to preserve and recover the compounds of interest.

See Section II for a discussion of the PE (spiked) samples submitted with this data set.

No other spiked analyses were performed with this sample set.

### **V. Duplicate/Replicate Samples**

Results for duplicate/replicate samples are evaluated to assess the laboratory's precision for the analytes of interest in the applicable sample matrix.

Eight field duplicate pairs (NFB-S10-100804 and NFB-S110-100804; SFB-CS01-100804 and SFB-CS101-100804; NYT-SG2-100804 and NYT-S1G2-100804; NYT-SA2-100804\* (\*in data set 049351) and NYT-S1A2-100804; NYT-S04-100804 and NYT-S104-100804; NYT-CS01-100804 and NYT-CS101-100804; SFB-S07-100804 and SFB-S107-100804; and DEM-S06-100904 and DEM-S106-100904\* (\*in data set 049487) were

included with this data set. Results for five of the pairs (SFB-CS01-100804 and SFB-CS101-100804; NYT-SG2-100804 and NYT-S1G2-100804; NYT-SA2-100804 and NYT-S1A2-100804; NYT-CS01-100804 and NYT-CS101-100804; and SFB-S07-100804 and SFB-S107-100804) showed excellent agreement. For the other three duplicate pairs one sample was reported to contain less than one percent (<1%) and the other was reported to contain one to five percent (1-5%). Based on 95% confidence limits for a result of 1% and professional judgement, these results show acceptable agreement. No qualifiers were applied on the basis of agreement between field duplicates.

The laboratory prepared and analyzed 10 laboratory duplicate sample pairs. Of these, all but one pair had identical results. The remaining duplicate pair, NYT-S104-100804 and its duplicate, had results of <1% and 1-5% total asbestos. The result for this sample was previously qualified as estimated based on high bias observed in the reference material; therefore, no further action was warranted.

## **VI. Identification**

Identification of asbestos is dependent on sample preparation techniques, analyst training, instrument operation, and data interpretation. Comparison with results from known standards is used to evaluate the accuracy of the structure identification for field samples.

Chrysotile and tremolite asbestos were correctly identified in the PE samples (see Section II). Only actinolite was identified in the field samples. Identification was based on the various optical properties of the asbestos fibers and was correctly performed, based on review of the raw data. Values for the optical properties recorded by the laboratory on the PLM data sheets were identical for all samples in which this asbestos type was identified.

The laboratory passed the criteria for NVLAP, based on the documentation provided, however, no actual sample results or raw data for the analyses of NVLAP PE samples were provided.

Analysis of the project PE samples was performed by an analyst with the initials DV and a second whose signature was illegible. Analyses of the field samples were performed by analysts with the initials SF and MB. It is recommended that documentation be included in the data packages for each sample batch that support the correct identification of asbestos by the analysts who perform the analyses on the field samples.

## **VII. Visual Estimation and Reported Detection Limits**

Raw data documentation is reviewed to ensure that all reported results and detection limits are correctly calculated, accurately reported, and supported by the raw data.

The laboratory's results for the two PE samples provided in association with this project were within the acceptance ranges suggested by RTI, however, a consistent tendency toward over estimation was observed. RTI's suggested range for the first PE (0.5% each of tremolite and chrysotile) were 0.1 to 5% and 0.1 to 4%, respectively. The laboratory found 2% tremolite and 3% chrysotile. If reported in the same manner as the field samples, this would result in a reported total asbestos content of 1-5%. RTI's suggested range for the second PE (2% each of tremolite and chrysotile) was >1 to 10% for both asbestos types. The laboratory reported results of 6% tremolite and 8% chrysotile, a total asbestos content of 14%.

Field sample results for PLM analyses associated with this project were reported by the laboratory as ND (not detected), <1%, or 1-5% total asbestos by weight. None of the field samples were reported with concentrations higher than the range 1-5%. Both of the PE sample true concentrations fell within these ranges. In the case of both PE samples, the laboratory's reported values show high bias, exceeding the true values by factors of three to five. Based on the indications of high bias in the only reference material analyzed and professional judgement, the



validator qualified all positive sample results as estimated (J). The data user is cautioned that these results are likely biased high.

### **VIII. System Performance**

This parameter is evaluated to ensure that the laboratory analytical systems were functioning properly at the time of analyses and that methodology appropriate to the analyses were followed.

The analytical system appears to have been working satisfactorily at the time of these analyses, based on the documentation provided in this data package shipment.

### **IX. Documentation**

Data and documentation completeness is critical in providing support for the reported results. Problems encountered with the nature or quality of the data package documentation are addressed.

The COC documentation included in the data package does not adequately support the custody of the samples in the data set.

Documentation of microscope checks should be included for every day on which samples are analyzed.

### **COMMENTS:**

- A. Based on the indications of high bias in the only reference material analyzed in association with this data set, and on professional judgement, the validator qualified all positive sample results for these samples as estimated (J). The data user is cautioned that these results are likely biased high.

This report was prepared according to the specifications of the analytical method, NIOSH 9002, Asbestos (bulk) by PLM, the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 10/99, and Trillium, Inc.'s SOP No. 0497-06A, for Validation of Analytical Data: Inorganic Analytes.

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 1 of 3

TDD No. **09-04-01-0011**  
 PAN: **001275.0440.01.TA**  
 Site: **El Dorado Hills, California**  
 Lab: **Asbestos TEM Laboratories, Inc.**  
 Reviewer: **Denise A. Shepperd, Trillium, Inc.**  
 Date: **June 30, 2005**

**Analysis Type:** **Soil Samples  
for Asbestos**

**Results as Percentage Asbestos**

Station Location	SFB-SS05-100804 741-00024-001 10/8/04			SFB-SS04-100804 741-00024-002 10/8/04			SFB-SS03-100804 741-00024-003 10/8/04			SFB-SS02-100804 741-00024-004 10/8/04			SFB-SS01-100804 741-00024-005 10/8/04		
Analyte	Result	Val	Com												
Percent Asbestos	1-5%	J	A	<1%	J	A									
Type	Actinolite														

Station Location	SFB-S02-100804 741-00024-006 10/8/04			NYB-SS01-100804 741-00024-007 10/8/04			NYB-S01-100804 741-00024-008 10/8/04			SFB-CSS01-100804 741-00024-009 10/8/04			SFB-CS01-100804 741-00024-010 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	1-5%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NYT-SC2-100804 741-000234011 10/8/04			NFB-SS05-100804 741-00024-012 10/8/04			NFB-SS04-100804 741-00024-013 10/8/04			NFB-SS03-100804 741-00024-014 10/8/04			NFB-SS02-100804 741-00024-015 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	1-5%	J	A	1-5%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NFB-SS01-100804 741-00024-016 10/8/04			D1 NFB-S110-100804 741-00024-017 10/8/04			D1 NFB-S10-100804 741-00024-018 10/8/04			SFB-S10-100804 741-00024-019 10/8/04			NFB-S08-100804 741-00024-020 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	1-5%	J	A	<1%	J	A	1-5%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

## ANALYTICAL RESULTS

## TABLE 1A

Page 2 of 3

TDD No. 09-04-01-0011  
 PAN: 001275.0440.01.TA  
 Site: El Dorado Hills, California  
 Lab: Asbestos TEM Laboratories, Inc.  
 Reviewer: Denise A. Shepperd, Trillium, Inc.  
 Date: June 30, 2005

Analysis Type: Soil Samples  
 for Asbestos

## Results as Percentage Asbestos

Station Location	D2			NFB-S09-100804			D7			D7			SFB-S06-100804		
	SFB-CS101-100804	741-00024-021	10/8/04	741-00024-022	10/8/04	741-00024-023	10/8/04	741-00024-024	10/8/04	741-00024-025	10/8/04	741-00024-025	10/8/04	741-00024-025	10/8/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	SFB-S08-100804			SFB-S05-100804			SFB-S04-100804			SFB-S03-100804			SFB-S01-100804		
	SFB-CS101-100804	741-00024-026	10/8/04	741-00024-027	10/8/04	741-00024-028	10/8/04	741-00024-029	10/8/04	741-00024-030	10/8/04	741-00024-031	10/8/04	741-00024-031	10/8/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NFB-CSS01-100804			SFB-S09-100804			NYT-S13-100804			NFB-CS01-100804			NYT-SJ2-100804		
	NFB-CS101-100804	741-00024-031	10/8/04	741-00024-032	10/8/04	741-00024-033	10/8/04	741-00024-034	10/8/04	741-00024-035	10/8/04	741-00024-035	10/8/04	741-00024-035	10/8/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NYT-SJ1-100804			NYT-SI2-100804			NYT-SI1-100804			D4			D3		
	NYT-CS101-100804	741-00024-036	10/8/04	NYT-CS101-100804	741-00024-037	10/8/04	NYT-CS101-100804	741-00024-038	10/8/04	NYT-S1A2-100804	741-00024-039	10/8/04	NYT-S1G2-100804	741-00024-040	10/8/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	1-5%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 3 of 3

**TDD No.** 09-04-01-0011  
**PAN:** 001275.0440.01.TA  
**Site:** El Dorado Hills, California  
**Lab:** Asbestos TEM Laboratories, Inc.  
**Reviewer:** Denise A. Shepperd, Trillium, Inc.  
**Date:** June 30, 2005

**Analysis Type:** Soil Samples  
for Asbestos

**Results as Percentage Asbestos**

Station Location	D5			NYT-SB3-100804			NYT-CS02-100804			NYT-SH1-100804			NYT-SJ3-100804		
	NYT-S104-100804 741-00024-041 10/8/04			741-00024-042 10/8/04			741-00024-043 10/8/04			741-00024-044 10/8/04			741-00024-045 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	1-5%	J	A	< 1%	J	A	<1%	J	A	<1%	J	A	1-5%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	D6			D3			NYT-SG3-100804			NYT-SH2-100804			NYT-SH3-100804		
	NYT-CS101-100804 741-00024-046 10/8/04			741-00024-047 10/8/04			741-00024-048 10/8/04			741-00024-049 10/8/04			741-00024-050 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	<1%	J	A	<1%	J	A	1-5%	J	A	1-5%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	NYT-S01-100804 741-00024-051 10/8/04			NYT-S02-100804 741-00024-052 10/8/04			NYT-S03-100804 741-00024-053 10/8/04			D5			D6		
	NYT-S04-100804 741-00024-054 10/8/04			NYT-CS01-100804 741-00024-055 10/8/04											
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	SVB-S09-100904 741-00024-056 10/8/04			DEM-S09-100904 741-00024-057 10/8/04			D8			DEM-S01-100904 741-00024-059 10/8/04			DEM-S02-100904 741-00024-060 10/8/04		
	DEM-S06-100904 741-00024-058 10/8/04			DEM-S01-100904 741-00024-059 10/8/04											
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	< 1%	J	A	1-5%	J	A	< 1%	J	A	< 1%	J	A	< 1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

**TABLE 1B**

**DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW**

The definitions of the following qualifiers are prepared in accordance with the document, "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 2/94.

- U The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit.
- L Indicates results which fall between the sample detection limit and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.
- R The data are unusable. The analyte was analyzed for, but the presence or absence of the analyte cannot be verified.
- UJ A combination of the "U" and "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.



## Data Validation Report

TDD No. 09-04-01-0011  
PAN: 001275.0440.01TA  
Site: El Dorado Hills, California  
Laboratory: Asbestos TEM Laboratories, Inc.  
Reviewer: Denise A. Shepperd, Trillium, Inc.  
Date: July 5, 2005

### I. Case Summary

#### SAMPLE INFORMATION:

Sample IDs: DEM-S03-100904; DEM-S04-100904; DEM-S05-100904; SVB-S10-100904; DEM-S07-100904; DEM-S106-100904; DEM-CS01-100904; DEM-S12-100904; DEM-S10-100904; DEM-S08-100904; SVB-S08-100904; SVB-S02-100904; DEM-S11-100904; RHS-S04-100904; RHS-S08-100904; DEM-S13-100904; RHS-S01-100904; SVB-S04-100904; RHS-S03-100904; SVB-CS01-100904; RHS-S05-100904; RHS-S06-100904; RHS-S106-100904; SVB-S07-100904; RHS-CS01-100904; SVB-S01-100904; SVB-S03-100904; SVB-S05-100904; SVB-S06-100904; SVB-S106-100904; RHS-S07-100904; RHS-S02-100904; JSG-S03-101004; JSG-S04-101004; JSG-S05-101004; JSG-S06-101004; JSG-S07-101004; JSG-S107-101004; JSG-S08-101004; and JSG-CS01-101004

Matrix: 40 Soil Samples  
Analysis: Asbestos by Polarized Light Microscopy  
Method: NIOSH 9002  
Collection Dates: October 9 and 10, 2004  
Sample Receipt Date: April 15, 2005  
Analysis Dates: April 27, 2005 and May 3, 2005

#### FIELD QC:

Trip Blanks (TB): None  
Field Blanks (FB): None  
Equipment Blanks (EB): None  
Background Samples (BG): None  
Field Duplicates : DEM-S106-100904 and DEM-S06-100904\* (\*in data set 049352); RHS-S06-100904 and RHS-S106-100904; SVB-S06-100904 and SVB-S106-100904; and JSG-S07-101004 and JSG-S107-101004

#### TABLES:

- 1A: Analytical Results with Qualifications  
1B: Data Qualifier Definitions for Inorganic Data Review

**SAMPLING ISSUES:**

Two chain of custody records received by the laboratory with the delivery of the samples included all of the samples identified in this data set. According to these records, the samples were collected on 10/9/04 and 10/10/04, but were not relinquished until 12/7/04. No indication is made of the disposition of the samples during this period of time and from the documentation provided, the custodian of the samples during this time cannot be determined. A second set of "relinquished and received" signatures appear for "all/return" of the samples; samples were relinquished on 3/11/05; no "received by" date or time were recorded for this transfer. A third set of relinquished and received signatures appears, both dated 4/15/05. There is no indication what this transfer represented on the COC records, however, the laboratory documentation indicates that the samples were received on 4/15/05 from FedEx. According to the documentation it would appear that the samples were sent and received on the same day via FedEx. COC records should provide sufficient information ( sampler initials, affiliations for all parties, and/or reasons for transfer) to support every transfer of the samples from the day of collection to the day of return or disposal. The COC documents included with these samples do not fulfill this purpose.

**VALIDATION PARAMETERS AND COMMENTS:****I. Holding Times, Preservation and Sample Integrity**

This parameter is evaluated to ensure that sample custody is documented from collection through analysis, samples are analyzed within the recommended holding time, and that no alteration in sample content has occurred during sample shipment, handling, and storage.

There is no established holding time or storage condition for asbestos samples.

According to the laboratory log-in report, all samples were received in excellent condition from "the client."

**II. Calibration**

The analyses of materials of known content ensures that identification and quantitation of analytes will be accurate for all samples. Review of the documentation provided for appropriate calibration determines whether or not the analytical results reported by the laboratory are valid and supported by the data.

Asbestos TEM Laboratories, Inc., participates in NVLAP. Documentation of the laboratory's current certification for EPA Method 600/M4-82-020 and "relevant requirements of ISO 9002:1994," which include PLM analyses for solid materials, was included in the data package. The certificate is effective through the end of June, 2005. Should additional information regarding the laboratory's ability to accurately identify and quantify asbestos be desired, results and supporting data for samples from this PE program should be obtained from the laboratory.

Logbook pages including daily microscope checks for dates 4/25/05, 4/26/05, 4/27/05, 4/28/05, 5/3/05, and 5/4/05 were included. Analyses of the samples in this data set were performed on 4/27/05 and 5/3/05. Monthly dispersive oil calibration documentation was provided on a separate logbook page. According to the documentation the applicable calibration was performed on 4/12/05.

Two performance evaluation samples, prepared for this project by RTI, were submitted to the laboratory. The PE samples were analyzed on 3/4/05. No documentation of microscope or other QC checks was included with the PE sample data. Two sets of raw data were included, representing identification and visual estimation performed by two different analysts. The two PE samples were generated by RTI at two different asbestos concentrations. The first sample contained tremolite and chrysotile asbestos, each at 0.5% (1% total asbestos). The second contained each of these two asbestos types at 2% (4% total asbestos). The laboratory's results for total asbestos for these two

samples were 5% and 14%, respectively. These are the only reference materials presented with this data set. The results the laboratory reported for these PEs are greater than three to five times the prepared concentrations, indicating the potential for high bias in positive results. Results for all of the samples in this data set were qualified as estimated (J) on this basis.

### **III. Blanks**

Sample matrices known to be devoid of the analytes of interest (method blanks) are prepared and analyzed with each analytical batch. Evaluation of this parameter ensures that contamination introduced during preparation and analyses is not attributed to the field samples. Other blanks may be generated in the field or laboratory to ensure that no contamination is introduced during sampling and/or storage.

A total of 16 laboratory blanks (all included in data set 049488) were prepared and analyzed with the sample batches associated with this data set (049351, 049352, 049487, and 049488) and represented both the drying and grinding steps of sample preparation. No asbestos structures were identified in any of these sixteen blanks. Two of these laboratory blanks, LAB-BL09-101104 and LAB-BL13-101104 were analyzed as laboratory duplicate pairs. Results for the duplicates in both cases were ND and <1%. Because results for all of the field samples were previously qualified as estimated based on the high bias observed in the reference material, no additional action was taken on the basis of laboratory blank results.

No field-generated blanks were included with this data set.

### **IV. Spiked Samples**

The analytes of interest are added in known concentrations to like-matrix blanks or authentic field samples before preparation. This parameter is evaluated in order to assess the laboratory's ability to preserve and recover the compounds of interest.

See Section II for a discussion of the PE (spiked) samples submitted with this data set.

No other spiked analyses were performed with this sample set.

### **V. Duplicate/Replicate Samples**

Results for duplicate/replicate samples are evaluated to assess the laboratory's precision for the analytes of interest in the applicable sample matrix.

Four field duplicate pairs (DEM-S106-100904 and DEM-S06-100904\* [\*in data set 049352]; RHS-S06-100904 and RHS-S106-100904; SVB-S06-100904 and SVB-S106-100904; and JSG-S07-101004 and JSG-S107-101004) were included with this data set. Results for three of the four pairs (RHS-S06-100904 and RHS-S106-100904; SVB-S06-100904 and SVB-S106-100904; and JSG-S07-101004 and JSG-S107-101004) showed excellent agreement. For the other duplicate pair one sample was reported to contain less than one percent (<1%) and the other was reported to contain one to five percent (1-5%). Based on 95% confidence limits for a result of 1% and professional judgement, these results show acceptable agreement. No qualifiers were applied on the basis of agreement between field duplicates.

The laboratory prepared and analyzed eight duplicate sample pairs. All eight of these duplicate pairs had identical results.

## **VI. Identification**

Identification of asbestos is dependent on sample preparation techniques, analyst training, instrument operation, and data interpretation. Comparison with results from known standards is used to evaluate the accuracy of the structure identification for field samples.

Chrysotile and tremolite asbestos were correctly identified in the PE samples (see Section II). Only actinolite was identified in the field samples. Identification was based on the various optical properties of the asbestos fibers and was correctly performed, based on review of the raw data. Values for the optical properties recorded by the laboratory on the PLM data sheets were identical for all samples in which this asbestos type was identified.

The laboratory passed the criteria for NVLAP, based on the documentation provided, however, no actual sample results or raw data for the analyses of NVLAP PE samples were provided.

Analysis of the project PE samples was performed by an analyst with the initials DV and a second whose signature was illegible. Analyses of the field samples were performed by analysts with the initials SF and MB. It is recommended that documentation be included in the data packages for each sample batch that support the correct identification of asbestos by the analysts who perform the analyses on the field samples.

## **VII. Visual Estimation and Reported Detection Limits**

Raw data documentation is reviewed to ensure that all reported results and detection limits are correctly calculated, accurately reported, and supported by the raw data.

The laboratory's results for the two PE samples provided in association with this project were within the acceptance ranges suggested by RTI. A consistent tendency toward over estimation was observed however. RTI's suggested range for the first PE (0.5% each of tremolite and chrysotile) were 0.1-5% and 0.1-4%, respectively. The laboratory found 2% tremolite and 3% chrysotile. If reported in the same manner as the field samples, this would result in a reported total asbestos content of 1-5%. RTI's suggested range for the second PE (2% each of tremolite and chrysotile) was >1-10% for both. The laboratory reported results of 6% tremolite and 8% chrysotile, a total asbestos content of 14%. Sample results were reported by the laboratory as containing <1 or 1-5% total asbestos by weight. In the case of both PE samples, the laboratory's reported values approached the high end of the suggested range, indicating a possible high bias. The validator did not qualify sample results on this basis, however, the data user is cautioned that the results reported by the laboratory are likely biased high.

Field sample results for PLM analyses associated with this project were reported by the laboratory as ND (not detected), <1%, or 1-5% total asbestos by weight. None of the field samples were reported with concentrations higher than the range 1-5%. Both of the PE sample true concentrations fell within these ranges. In the case of both PE samples, the laboratory's reported values show high bias, exceeding the true values by factors of three to five. Based on the indications of high bias in the only reference material analyzed and professional judgement, the validator qualified all positive sample results as estimated (J). The data user is cautioned that these results are likely biased high.

## **VIII. System Performance**

This parameter is evaluated to ensure that the laboratory analytical systems were functioning properly at the time of analyses and that methodology appropriate to the analyses were followed.



The analytical system appears to have been working satisfactorily at the time of these analyses, based on the documentation provided in this data package shipment.

#### **IX. Documentation**

Data and documentation completeness is critical in providing support for the reported results. Problems encountered with the nature or quality of the data package documentation are addressed.

The COC documentation included in the data package does not adequately support the custody of the samples in the data set.

#### **COMMENTS:**

- A. Based on the indications of high bias in the only reference material analyzed in association with this data set, and on professional judgement, the validator qualified all positive sample results for these samples as estimated (J). The data user is cautioned that these results are likely biased high.

This report was prepared according to the specifications of the analytical method, NIOSH 9002, Asbestos (bulk) by PLM, the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 10/99, and Trillium, Inc.'s SOP No. 0497-06A, for Validation of Analytical Data: Inorganic Analytes.

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 1 of 2

**TDD No.** 09-04-01-0011  
**PAN:** 001275.0440.01.TA  
**Site:** El Dorado Hills, California  
**Lab:** Asbestos TEM Laboratories, Inc.  
**Reviewer:** Denise A. Shepperd, Trillium, Inc.  
**Date:** July 5, 2005

**Analysis Type:** Soil Samples  
for Asbestos

**Results as Percentage Asbestos**

Station Location	DEM-S03-100904 741-00025-001 10/8/04			DEM-S04-100904 741-00025-002 10/8/04			DEM-S05-100904 741-00025-003 10/8/04			SVB-S10-100904 741-00025-004 10/8/04			DEM-S07-100904 741-00025-005 10/8/04		
Analyte	Result	Val	Com												
Percent Asbestos	<1%	J	A	1-5%	J	A	1-5%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite														

Station Location	D1 DEM-S106-100904 741-00025-006 10/8/04			DEM-CS01-100904 741-00025-007 10/8/04			DEM-S12-100904 741-00025-008 10/8/04			DEM-S10-100904 741-00025-009 10/8/04			DEM-S08-100904 741-00025-010 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	1-5%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	SVB-S08-100904 741-00025-011 10/8/04			SVB-S02-100904 741-00025-012 10/8/04			DEM-S11-100904 741-00025-013 10/8/04			RHS-S04-100904 741-00025-014 10/8/04			RHS-S08-100904 741-00025-015 10/8/04		
Analyte	Result	Val	Com												
Percent Asbestos	<1%	J	A												
Type	Actinolite														

Station Location	DEM-S13-100904 741-00025-016 10/8/04			RHS-S01-100904 741-00025-017 10/8/04			SVB-S04-100904 741-00025-018 10/8/04			RHS-S03-100904 741-00025-019 10/8/04			SVB-CS01-100904 741-00025-020 10/8/04		
Analyte	Result	Val	Com	Result	Val	Com									
Percent Asbestos	<1%	J	A	<1%	J	A									
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

DL = Detection Limit

ND = Not detected

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 2 of 2

**TDD No.** 09-04-01-0011  
**PAN:** 001275.0440.01.TA  
**Site:** El Dorado Hills, California  
**Lab:** Asbestos TEM Laboratories, Inc.  
**Reviewer:** Denise A. Shepperd, Trillium, Inc.  
**Date:** July 5, 2005

**Analysis Type:** Soil Samples  
for Asbestos

**Results as Percentage Asbestos**

Station Location	RHS-S05-100904 741-00025-021 10/9/04			D2			D2			SVB-S07-100904 741-00025-024 10/9/04			RHS-CS01-100904 741-00025-025 10/9/04		
				Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	SVB-S01-100904 741-00025-026 10/9/04			SVB-S03-100904 741-00025-027 10/9/04			SVB-S05-100904 741-00025-028 10/9/04			SVB-S06-100904 741-00025-029 10/9/04			SVB-S106-100904 741-00025-030 10/9/04		
				Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	RHS-S07-100904 741-00025-031 10/9/04			RHS-S02-100904 741-00025-032 10/9/04			JSG-S03-101004 741-00025-033 10/10/04			JSG-S04-101004 741-00025-034 10/10/04			JSG-S05-101004 741-00025-035 10/10/04		
				Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	JSG-S06-101004 741-00025-036 10/10/04			D4			D4			JSG-S08-101004 741-00025-039 10/10/04			JSG-CS01-101004 741-00025-040 10/10/04		
				Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

DL = Detection Limit

ND - Not detected



**TABLE 1B**

**DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW**

The definitions of the following qualifiers are prepared in accordance with the document, "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 2/94.

- U** The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit.
- L** Indicates results which fall between the sample detection limit and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J** The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.
- R** The data are unusable. The analyte was analyzed for, but the presence or absence of the analyte cannot be verified.
- UJ** A combination of the "U" and "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.



## Data Validation Report

TDD No. 09-04-01-0011  
PAN: 001275.0440.01TA  
Site: El Dorado Hills, California  
Laboratory: Asbestos TEM Laboratories, Inc.  
Reviewer: Denise A. Shepperd, Trillium, Inc.  
Date: July 5, 2005

### I. Case Summary

#### SAMPLE INFORMATION:

Sample IDs: JSG-S02-101004; JSB-S05-101004; JSG-S09-101004; JSS-S01-101004; JSG-S01-101004; JSB-S07-101004; JSB-S01-101004; JSB-S101-101004; JSB-S02-101004; JSB-S03-101004; JSB-S04-101004; JSB-CS01-101004; JSS-S02-101004; JSS-S03-101004; JSS-S04-101004; JSS-S05-101004; JSS-S06-101004; JSS-S07-101004; JSS-CS01-101004; JSB-S06-101004; DPA-SA3-101104; DPA-S01-101104; DPA-SA1-101104; DPA-CS01-101104; DPA-SA2-101104; DPA-S1A3-101104

Laboratory Blanks: LAB-BL01-101104; LAB-BL02-101104; LAB-BL03-101104; LAB-BL05-101104; LAB-BL06-101104; LAB-BL07-101104; LAB-BL08-101104; LAB-BL09-101104; LAB-BL10-101104; LAB-BL11-101104; LAB-BL12-101104; LAB-BL13-101104; LAB-BL14-101104; LAB-BL15-101104; LAB-BL16-101104

Laboratory Preparation Duplicates: LAB-DUP01-101104; LAB-DUP02-101104; LAB-DUP03-101104; LAB-DUP04-101104; LAB-DUP05-101104; LAB-DUP06-101104; LAB-DUP07-101104; LAB-DUP08-101104; LAB-DUP09-101104; LAB-DUP10-101104

Matrix: 26 Soil Samples; 16 Laboratory Preparation Blanks; 10 Laboratory Duplicates

Analysis: Asbestos by Polarized Light Microscopy

Method: NIOSH 9002

Collection Dates: October 10 and 11, 2004

Sample Receipt Date: April 15, 2005

Analysis Dates: April 28, 2005 and May 3, 2005

FIELD QC:

Trip Blanks (TB): None

Field Blanks (FB): None

Equipment Blanks (EB): None

Background Samples (BG): None

Field Duplicates : JSB-S01-101004 and JSB-S101-101004 and



DPA-SA3-101104 and DPA-S1A3-101104

**TABLES:**

- 1A: Analytical Results with Qualifications
- 1B: Data Qualifier Definitions for Inorganic Data Review

**SAMPLING ISSUES:**

Three chain of custody records received by the laboratory with the delivery of the samples included all of the samples identified in this data set. According to these records, the samples were collected on 10/10/04 and 10/11/04, but were not relinquished until 12/7/04. No indication is made of the disposition of the samples during this period of time and from the documentation provided, the custodian of the samples during this time cannot be determined. A second set of "relinquished and received" signatures appear for "all/return" of the samples; samples were relinquished on 3/11/05; no "received by" date or time were recorded for this transfer. A third set of relinquished and received signatures appears, both dated 4/15/05. There is no indication what this transfer represented on the COC records, however, the laboratory documentation indicates that the samples were received on 4/15/05 from FedEx. It is not clear how the samples were sent and received on the same day via FedEx. COC records should provide sufficient information (sampler initials, affiliations for all parties, and/or reasons for transfer) to support every transfer of the samples from the day of collection to the day of return or disposal. The COC documents included with these samples do not fulfill this purpose.

**VALIDATION PARAMETERS AND COMMENTS:**

**I. Holding Times, Preservation and Sample Integrity**

This parameter is evaluated to ensure that sample custody is documented from collection through analysis, samples are analyzed within the recommended holding time, and that no alteration in sample content has occurred during sample shipment, handling, and storage.

There is no established holding time or storage condition for asbestos samples.

According to the laboratory log-in report, all samples were received in excellent condition from "the client."

**II. Calibration**

The analyses of materials of known content ensures that identification and quantitation of analytes will be accurate for all samples. Review of the documentation provided for appropriate calibration determines whether or not the analytical results reported by the laboratory are valid and supported by the data.

Asbestos TEM Laboratories, Inc., participates in NVLAP. Documentation of the laboratory's current certification for EPA Method 600/M4-82-020 and "relevant requirements of ISO 9002:1994," which include PLM analyses for solid materials, was included in the data package. The certificate is effective through the end of June, 2005. Should additional information regarding the laboratory's ability to accurately identify and quantify asbestos be desired, results and supporting data for samples from this PE program should be obtained from the laboratory.

Logbook pages including daily microscope checks for dates 4/25/05, 4/26/05, 4/27/05, 4/28/05, 5/3/05, and 5/4/05 were included. Analyses of the samples in this data set were performed on 4/28/05 and 5/3/05. Monthly dispersive

oil calibration documentation was provided on a separate logbook page. According to the documentation the applicable calibration was performed on 4/12/05.

Two performance evaluation samples, prepared for this project by RTI, were submitted to the laboratory. The PE samples were analyzed on 3/4/05. No documentation of microscope or other QC checks was included with the PE sample data. Two sets of raw data were included, representing identification and visual estimation performed by two different analysts. The two PE samples were generated by RTI at two different asbestos concentrations. The first sample contained tremolite and chrysotile asbestos, each at 0.5% (1% total asbestos). The second contained each of these two asbestos types at 2% (4% total asbestos). The laboratory's results for total asbestos for these two samples were 5% and 14%, respectively. These are the only reference materials presented with this data set. The results the laboratory reported for these PEs are greater than three to five times the prepared concentrations, indicating the potential for high bias in positive results. Positive results for the samples in this data set were qualified as estimated (J) on this basis.

### **III. Blanks**

Sample matrices known to be devoid of the analytes of interest (method blanks) are prepared and analyzed with each analytical batch. Evaluation of this parameter ensures that contamination introduced during preparation and analyses is not attributed to the field samples. Other blanks may be generated in the field or laboratory to ensure that no contamination is introduced during sampling and/or storage.

A total of 16 laboratory blanks (all included in this data set, 049488) were prepared and analyzed with the sample batches associated with this data set (049351, 049352, 049487, and 049488) and represented both the drying and grinding steps of sample preparation. No asbestos structures were identified in any of these sixteen blanks. Two of these laboratory blanks, LAB-BL09-101104 and LAB-BL13-101104 were analyzed as laboratory duplicate pairs. Results for the duplicates in both cases were ND and <1%. Because results for all of the field samples were previously qualified as estimated based on the high bias observed in the reference material, no additional action was taken on the basis of laboratory blank results.

No field-generated blanks were included with this data set.

### **IV. Spiked Samples**

The analytes of interest are added in known concentrations to like-matrix blanks or authentic field samples before preparation. This parameter is evaluated in order to assess the laboratory's ability to preserve and recover the compounds of interest.

See Section II for a discussion of the PE (spiked) samples submitted with this data set.

No other spiked analyses were performed with this sample set.

### **V. Duplicate/Replicate Samples**

Results for duplicate/replicate samples are evaluated to assess the laboratory's precision for the analytes of interest in the applicable sample matrix.

Two field duplicate pairs (JSB-S01-101004 and JSB-S101-101004 and DPA-SA3-101104 and DPA-S1A3-101104) were included with this data set. Results for both of the pairs showed excellent agreement.

The laboratory analyzed 10 laboratory duplicate sample pairs in this data set. Seven of the ten duplicate pairs had identical results. LAB-BL09-101104 and its lab duplicate and LAB-BL13-101104 and its lab duplicate both gave results of <1% and ND. The laboratory reported ND for both of these samples (laboratory drying blanks). LAB-DUP06-101104 and its lab duplicate gave results of <1% and 1-5%. The laboratory reported a result of <1% for this sample. This sample (LAB-DUP06-101104) is also a laboratory preparation duplicate of DPA-SA3-101104, which was reported with a result of <1%. Because results for all of the field samples in this data set were previously qualified as estimated due to the high bias observed in the reference material, no additional action was taken on the basis of these laboratory duplicate or blank results.

The soil preparation laboratory prepared and submitted 10 preparation duplicates for analysis. All 10 of these duplicate samples were submitted, analyzed, and reported with this data set (049488). Six of these 10 pairs gave identical results. The remaining four duplicate pairs gave a result of <1% for one of the paired samples and 1-5% for the other. Because results for all of the field samples were previously qualified as estimated based on the high bias observed in the reference material, no additional action was taken on the basis of laboratory blank results.

## VI. Identification

Identification of asbestos is dependent on sample preparation techniques, analyst training, instrument operation, and data interpretation. Comparison with results from known standards is used to evaluate the accuracy of the structure identification for field samples.

Chrysotile and tremolite asbestos were correctly identified in the PE samples (see Section II). Only actinolite was identified in the field samples. Identification was based on the various optical properties of the asbestos fibers and was correctly performed, based on review of the raw data. Values for the optical properties recorded by the laboratory on the PLM data sheets were identical for all samples in which this asbestos type was identified.

The laboratory passed the criteria for NVLAP, based on the documentation provided, however, no actual sample results or raw data for the analyses of NVLAP PE samples were provided.

Analysis of the project PE samples was performed by an analyst with the initials DV and a second whose signature was illegible. Analyses of the field samples were performed by analysts with the initials SF and MB. It is recommended that documentation be included in the data packages for each sample batch that support the correct identification of asbestos by the analysts who perform the analyses on the field samples.

## VII. Visual Estimation and Reported Detection Limits

Raw data documentation is reviewed to ensure that all reported results and detection limits are correctly calculated, accurately reported, and supported by the raw data.

The laboratory's results for the two PE samples provided in association with this project were within the acceptance ranges suggested by RTI, however, a consistent tendency toward over estimation was observed. RTI's suggested range for the first PE (0.5% each of tremolite and chrysotile) were 0.1 to 5% and 0.1 to 4%, respectively. The laboratory found 2% tremolite and 3% chrysotile. If reported in the same manner as the field samples, this would result in a reported total asbestos content of 1-5%. RTI's suggested range for the second PE (2% each of tremolite and chrysotile) was >1 to 10% for both asbestos types. The laboratory reported results of 6% tremolite and 8% chrysotile, a total asbestos content of 14%.

Field sample results for PLM analyses associated with this project were reported by the laboratory as ND (not detected), <1%, or 1-5% total asbestos by weight. None of the field samples were reported with concentrations higher than the range 1-5%. Both of the PE sample true concentrations fell within these ranges. In the case of both



PE samples, the laboratory's reported values show high bias, exceeding the true values by factors of three to five. Based on the indications of high bias in the only reference material analyzed and professional judgement, the validator qualified all positive sample results as estimated (J). The data user is cautioned that these results are likely biased high.

### **VIII. System Performance**

This parameter is evaluated to ensure that the laboratory analytical systems were functioning properly at the time of analyses and that methodology appropriate to the analyses were followed.

The analytical system appears to have been working satisfactorily at the time of these analyses, based on the documentation provided in this data package shipment.

### **IX. Documentation**

Data and documentation completeness is critical in providing support for the reported results. Problems encountered with the nature or quality of the data package documentation are addressed.

The COC documentation included in the data package does not adequately support the custody of the samples in the data set.

### **COMMENTS:**

- A. Based on the indications of high bias in the only reference material analyzed in association with this data set, and on professional judgement, the validator qualified all positive sample results for these samples as estimated (J). The data user is cautioned that these results are likely biased high.

This report was prepared according to the specifications of the analytical method, NIOSH 9002, Asbestos (bulk) by PLM, the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 10/99, and Trillium, Inc.'s SOP No. 0497-06A, for Validation of Analytical Data: Inorganic Analytes.

## ANALYTICAL RESULTS

TABLE 1A

Page 1 of 3

TDD No. 09-04-01-0011  
 PAN: 001275.0440.01.TA  
 Site: El Dorado Hills, California  
 Lab: Asbestos TEM Laboratories, Inc.  
 Reviewer: Denise A. Shepperd, Trillium, Inc.  
 Date: July 5, 2005

Analysis Type: Soil Samples  
for Asbestos

## Results as Percentage Asbestos

Station Location	JSG-S02-101004			JSB-S05-101004			JSG-S09-101004			JSS-S01-101004			JSG-S01-101004		
Sample Lab I.D.	741-00026-001			741-00026-002			741-00026-003			741-00026-004			741-00026-005		
Date of Collection	10/10/04			10/10/04			10/10/04			10/10/04			10/10/04		
Analyte	Result	Val	Com												
Percent Asbestos	<1%	J	A												
Type	Actinolite														

Station Location	JSB-S07-101004			D1 JSB-S01-101004			D1 JSB-S101-101004			JSB-S02-101004			JSB-S03-101004		
Sample Lab I.D.	741-00026-006			741-00026-007			741-00026-008			741-00026-009			741-00026-010		
Date of Collection	10/10/04			10/10/04			10/10/04			10/10/04			10/10/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	JSB-S04-101004			JSB-CS01-101004			JSS-S02-101004			JSS-S03-101004			JSS-S04-101004		
Sample Lab I.D.	741-000234011			741-00026-012			741-00026-013			741-00026-014			741-00026-015		
Date of Collection	10/10/04			10/10/04			10/10/04			10/10/04			10/10/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	JSS-S05-101004			JSS-S06-101004			JSS-S07-101004			JSS-CS01-101004			JSB-S06-101004		
Sample Lab I.D.	741-00026-016			741-00026-017			741-00026-018			741-00026-019			741-00026-020		
Date of Collection	10/10/04			10/10/04			10/10/04			10/10/04			10/10/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

DL = Detection Limit

ND - Not detected

**ANALYTICAL RESULTS**  
**TABLE 1A**

Page 2 of 3

TDD No. 09-04-01-0011  
 PAN: 001275.0440.01.TA  
 Site: El Dorado Hills, California  
 Lab: Asbestos TEM Laboratories, Inc.  
 Reviewer: Denise A. Shepperd, Trillium, Inc.  
 Date: July 5, 2005

Analysis Type: Soil Samples  
for Asbestos

**Results as Percentage Asbestos**

Station Location	D2			DPA-S01-101104			DPA-SA1-101104			DPA-CS01-101104			DPA-SA2-101104		
	DPA-SA3-101104	741-00026-021	10/11/04	DPA-S01-101104	741-00026-022	10/11/04	DPA-SA1-101104	741-00026-023	10/11/04	DPA-CS01-101104	741-00026-024	10/11/04	DPA-SA2-101104	741-00026-025	10/11/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	D2			LAB-BL01-101104			LAB-BL07-101104			LAB-DUP01-101104			LAB-DUP02-101104		
	DPA-S1A3-101104	741-00026-026	10/11/04	741-00026-027	10/11/04	741-00026-028	10/11/04	741-00026-029	10/11/04	741-00026-030	10/11/04	741-00026-031	10/11/04	741-00026-032	10/11/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A	<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	LAB-BL03-101104			LAB-BL02-101104			LAB-BL08-101104			LAB-BL04-101104			LAB-DUP03-101104		
	741-00026-031	741-00026-032	10/11/04	741-00026-032	741-00026-033	10/11/04	741-00026-033	741-00026-034	10/11/04	741-00026-034	741-00026-035	10/11/04	741-00026-035	741-00026-036	10/11/04
Analyte	Result	Val	Com	Result	Val	Com									
Percent Asbestos	ND			ND			ND			ND			<1%	J	A
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	LAB-DUP04-101104			LAB-BL09-101104			LAB-DUP07-101104			LAB-BL06-101104			LAB-BL11-101104		
	741-00026-036	741-00026-037	10/11/04	741-00026-037	741-00026-038	10/11/04	741-00026-038	741-00026-039	10/11/04	741-00026-039	741-00026-040	10/11/04	741-00026-040	741-00026-041	10/11/04
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	<1%	J	A	ND			1-5	J	A	ND			ND		
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

DL = Detection Limit

ND - Not detected

## ANALYTICAL RESULTS

TABLE 1A

Page 3 of 3

TDD No. 09-04-01-0011  
 PAN: 001275.0440.01.TA  
 Site: El Dorado Hills, California  
 Lab: Asbestos TEM Laboratories, Inc.  
 Reviewer: Denise A. Shepperd, Trillium, Inc.  
 Date: July 5, 2005

Analysis Type: Soil/Rock Samples  
 for Asbestos

## Results as Percentage Asbestos

Station Location	LAB-BL10-101104 741-00026-041 10/11/04			LAB-DUP05-101104 741-00026-042 10/11/04			LAB-DUP06-101104 741-00026-043 10/11/04			LAB-DUP08-101104 741-00026-044 10/11/04			LAB-BL05-101104 741-00026-045 10/11/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	ND			<1%	J	A	<1%			<1%	J	A	ND		
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	LAB-DUP10-101104 741-00026-046 10/11/04			LAB-DUP09-101104 741-00026-047 10/11/04			LAB-BL15-101104 741-00026-048 10/11/04			LAB-BL12-101104 741-00026-049 10/11/04			LAB-BL13-101104 741-00026-050 10/11/04		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	1-5%	J	A	<1%	J	A	ND			ND			ND		
Type	Actinolite			Actinolite			Actinolite			Actinolite			Actinolite		

Station Location	LAB-BL14-101104 741-00026-051 10/11/04			LAB-BL16-101104 741-00026-052 10/11/04			DL								
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Percent Asbestos	ND			ND			1%								
Type															

Station Location															
Analyte	Result	Val	Com												
Percent Asbestos															
Type															

Val-Validity Refer to Data Qualifiers in Table 1B.

DL, D2, etc. - Field Duplicate Pairs

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

DL = Detection Limit

ND - Not detected



**TABLE 1B**

**DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW**

The definitions of the following qualifiers are prepared in accordance with the document, "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," 2/94.

- U** The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit.
- L** Indicates results which fall between the sample detection limit and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J** The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.
- R** The data are unusable. The analyte was analyzed for, but the presence or absence of the analyte cannot be verified.
- UJ** A combination of the "U" and "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL REPORT**

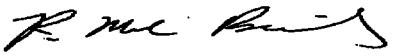
Analyzed by NIOSH 9002 Method

Page: 1 of 6

Contact: Mr. Howard Edwards	Samples Indicated:	60	Report No.	<b>049352</b>
Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Reg. Samples Analyzed:	60	Date Submitted:	Apr-15-05
	Split Layers Analyzed:	0	Date Reported:	May-02-05
	Job Site / No.	0440.01CP		
<b>SAMPLE ID</b>	<b>%</b>	<b>ASBESTOS TYPE</b>	<b>OTHER DATA</b>	
			1) Non-Asbestos Fibers	2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed
<b>FIELD</b>	<b>LAB</b>			
<b>SFB-SS05-100804</b>	1-5%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1140 4) Apr-25-05	Soil  Soil-Orange
Lab ID # 741-00024-001				
<b>SFB-SS04-100804</b>	1-5%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1030 4) Apr-25-05	Soil  Soil-Black
Lab ID # 741-00024-002				
<b>SFB-SS03-100804</b>	1-5%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1020 4) Apr-25-05	Soil  Soil-Black
Lab ID # 741-00024-003				
<b>SFB-SS02-100804</b>	1-5%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1010 4) Apr-25-05	Soil  Soil-Black
Lab ID # 741-00024-004				
<b>SFB-SS01-100804</b>	<1%	<b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1050 4) Apr-25-05	Soil  Soil-Beige
Lab ID # 741-00024-005				
<b>SFB-S02-100804</b>	<1%	<b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1007 4) Apr-25-05	Soil  Soil-Brown
Lab ID # 741-00024-006				
<b>NYB-SS01-100804</b>	1-5%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1250 4) Apr-25-05	Soil  Soil-Brown
Lab ID # 741-00024-007				
<b>NYB-S01-100804</b>	<1%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1157 4) Apr-25-05	Soil  Soil-Brown
Lab ID # 741-00024-008				
<b>SFB-CSS01-100804</b>	<1%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1310 4) Apr-25-05	Soil  Soil-Brown
Lab ID # 741-00024-009				
<b>SFB-CS01-100804</b>	<1%	<b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p.  3) Oct-08-04 1925 4) Apr-25-05	Soil  Soil-Brown
Lab ID # 741-00024-010				

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer \_\_\_\_\_



Analyst \_\_\_\_\_



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

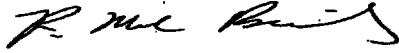
Analyzed by NIOSH 9002 Method

Page: 2 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 60 Reg. Samples Analyzed: 60 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049352 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
NYT-SC2-100804 Lab ID # 741-00024-011	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1615 4)Apr-25-05 Soil Soil-Brown
NFB-SS05-100804 Lab ID # 741-00024-012	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1215 4) Apr-25-05 Soil Soil-Brown
NFB-SS04-100804 Lab ID # 741-00024-013	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1115 4) May-02-05 Soil Soil-Brown
NFB-SS03-100804 Lab ID # 741-00024-014	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1120 4) Apr-25-05 Soil Soil-Brown
NFB-SS02-100804 Lab ID # 741-00024-015	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1105 4) May-02-05 Soil Soil-Brown
NFB-SS01-100804 Lab ID # 741-00024-016	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1130 4) Apr-25-05 Soil Soil-Brown
NFB-S110-100804 Lab ID # 741-00024-017	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1040 4) Apr-25-05 Soil Soil-Brown
NFB-S10-100804 Lab ID # 741-00024-018	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1033 4) Apr-25-05 Soil Soil-Brown
SFB-S10-100804 Lab ID # 741-00024-019	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 0915 4) Apr-25-05 Soil Soil-Brown
NFB-S08-100804 Lab ID # 741-00024-020	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1040 4) Apr-25-05 Soil Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

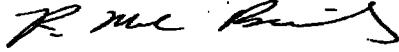
Analyzed by NIOSH 9002 Method

Page: 3 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 60 Reg. Samples Analyzed: 60 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No.: 049352 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
SFB-CS101-100804 Lab ID # 741-00024-021	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1305 4)May-02-05 Soil-Orange
NFB-S09-100804 Lab ID # 741-00024-022	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1110 4) May-02-05 Soil-Brown
SFB-S107-100804 Lab ID # 741-00024-023	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1050 4) Apr-25-05 Soil-Brown
SFB-S07-100804 Lab ID # 741-00024-024	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 0930 4) Apr-25-05 Soil-Brown
SFB-S06-100804 Lab ID # 741-00024-025	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1045 4) Apr-25-05 Soil-Brown
SFB-S08-100804 Lab ID # 741-00024-026	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 0925 4) Apr-25-05 Soil-Brown
SFB-S05-100804 Lab ID # 741-00024-027	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1035 4) Apr-25-05 Soil-Brown
SFB-S04-100804 Lab ID # 741-00024-028	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1025 4) Apr-25-05 Soil-Beige
SFB-S03-100804 Lab ID # 741-00024-029	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1015 4) Apr-25-05 Soil-Beige
SFB-S01-100804 Lab ID # 741-00024-030	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1040 4) Apr-25-05 Soil-Beige

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

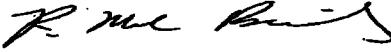
Analyzed by NIOSH 9002 Method

Page: 4 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 60 Reg. Samples Analyzed: 60 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049352 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>ASBESTOS % TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
NFB-CSS01-100804 Lab ID # 741-00024-031	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1505 4)May-02-05 Soil-Beige
SFB-S09-100804 Lab ID # 741-00024-032	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 0905 4) Apr-25-05 Soil-Brown
NYT-S13-100804 Lab ID # 741-00024-033	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1710 4) Apr-25-05 Soil-Brown
NFB-CS01-100804 Lab ID # 741-00024-034	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1500 4) Apr-25-05 Soil-Brown
NYT-SJ2-100804 Lab ID # 741-00024-035	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1528 4) May-02-05 Soil-Brown
NYT-SJ1-100804 Lab ID # 741-00024-036	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1720 4) Apr-25-05 Soil-Brown
NYT-SI2-100804 Lab ID # 741-00024-037	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1656 4) May-02-05 Soil-Brown
NYT-SI1-100804 Lab ID # 741-00024-038	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1646 4) Apr-25-05 Soil-Brown
NYT-S1A2-100804 Lab ID # 741-00024-039	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1900 4) Apr-25-05 Soil-Brown
NYT-S1G2-100804 Lab ID # 741-00024-040	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1740 4) Apr-25-05 Soil-Orange

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

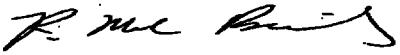
Analyzed by NIOSH 9002 Method

Page: **5 of 6**

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 60 Reg. Samples Analyzed: 60 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. <b>049352</b> Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
NYT-S104-100804 Lab ID # 741-00024-041	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1735 4)Apr-25-05
NYT-SB3-100804 Lab ID # 741-00024-042	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1612 4) May-02-05
NYT-CS02-100804 Lab ID # 741-00024-043	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1900 4)Apr-25-05
NYT-SH1-100804 Lab ID # 741-00024-044	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1622 4)Apr-25-05
NYT-SJ3-100804 Lab ID # 741-00024-045	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1740 4)Apr-25-05
NYT-CS101-100804 Lab ID # 741-00024-046	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1945 4)May-02-05
NYT-SG2-100804 Lab ID # 741-00024-047	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1740 4)May-02-05
NYT-SG3-100804 Lab ID # 741-00024-048	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1740 4)May-02-05
NYT-SH2-100804 Lab ID # 741-00024-049	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1625 4)Apr-26-05
NYT-SH3-100804 Lab ID # 741-00024-050	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-08-04 1634 4)Apr-26-05

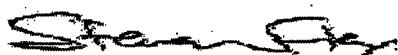
Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



ASBESTOS TEM LABORATORIES, INC.  
www.asbestos tem labs.com

Analyst



630 Bancroft Way, Berkeley CA 94710  
With Offices in Reno, NV (775) 359-3377

(510) 704-8930

**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: 6 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 60 Reg. Samples Analyzed: 60 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049352 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
NYT-S01-100804 Lab ID # 741-00024-051	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1718 4)Apr-26-05 Soil-Brown
NYT-S02-100804 Lab ID # 741-00024-052	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1601 4)Apr-26-05 Soil-Brown
NYT-S03-100804 Lab ID # 741-00024-053	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1650 4)Apr-26-05 Soil-Brown
NYT-S04-100804 Lab ID # 741-00024-054	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1735 4)May-02-05 Soil-Brown
NYT-CS01-100804 Lab ID # 741-00024-055	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-08-04 1945 4)Apr-26-05 Soil-Brown
SVB-S09-100904 Lab ID # 741-00024-056	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1716 4)Apr-26-05 Soil-Brown
DEM-S09-100904 Lab ID # 741-00024-057	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1510 4)Apr-26-05 Soil-Beige
DEM-S06-100904 Lab ID # 741-00024-058	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1437 4)May-02-05 Soil-Brown
DEM-S01-100904 Lab ID # 741-00024-059	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1350 4)Apr-26-05 Soil-Grey
DEM-S02-100904 Lab ID # 741-00024-060	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1356 4)May-02-05 Soil-Beige

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer

ASBESTOS TEM LABORATORIES, INC.  
www.asbestos tem labs.com

Analyst

630 Bancroft Way, Berkeley CA 94710 (510) 704-8930  
With Offices in Reno, NV (775) 359-3377

EDH Investigation S01L

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Site #: 0440.01GP

Contact Name: Charles LaCerra

Contact Phone: (856) 859-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab\_City: Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	SFB-SS05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:40	1	BAG
✓	SFB-SS04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:30	1	BAG
✓	SFB-SS03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:20	1	BAG
✓	SFB-SS02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:10	1	BAG
✓	SFB-SS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:50	1	BAG
✓	SFB-S02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:07	1	BAG
✓	NYB-SS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:50	1	BAG
✓	NYB-S01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:57	1	BAG
✗	SFB-CSS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:10	1	BAG
✗	SFB-CS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	19:25	1	BAG
✓	NYT-SC2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	16:15	1	BAG
✓	NFB-SS05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:15	1	BAG
✓	NFB-SS04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:15	1	BAG
✓	NFB-SS03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:20	1	BAG
✓	NFB-SS02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:05	1	BAG
✓	NFB-SS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:30	1	BAG
✓	NFB-S110-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:40	1	BAG
✓	NFB-S10-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:33	1	BAG
✓	SFB-S10-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	09:15	1	BAG
✓	NFB-S09-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:40	1	BAG

Comments: Refer to C-OC Attachment A

REFERENCES

EDH Investigation SOIL

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Site # 0440-0158

Contact Name: Charles LeCarré

Contact Phone: (858) 858-4200

No: 0440-01CP-0021

Lab: EMSI Analytical

Lab City: Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #	Analyses for SOL	Matrix	Date Collected	Sample Time	Numb Cont	Priority
X	SFB-CS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:05	1	BAG
✓	NFB-S09-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:10	1	BAG
✓	SFB-S107-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:50	1	BAG
✓	SFB-S07-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	09:30	1	BAG
✓	SFB-S06-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:45	1	BAG
✓	SFB-S08-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	09:25	1	BAG
✓	SFB-S05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:35	1	BAG
✓	SFB-S04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:25	1	BAG
✓	SFB-S03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:15	1	BAG
✓	SFB-S01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:40	1	BAG
X	NFB-CSS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	15:05	1	BAG
✓	SFB-S09-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	09:05	1	BAG
✓	NYT-SI3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:10	1	BAG
X	NFB-CS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	15:00	1	BAG
✓	NYT-SJ2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	15:28	1	BAG
✓	NYT-SJ1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:20	1	BAG
✓	NYT-SI2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	16:56	1	BAG
✓	NYT-SI1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	16:46	1	BAG
✓	NYT-S1A2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	19:00	1	BAG
✓	NYT-S1G2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:40	1	BAG

#### **Comments**

Refer to C-O-C Attachment A

#### SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

CHAIN OF CUSTODY # 10  
20440 C1CP-CCIS

०४८५२४१८५

EDH Investigation SOIL

**CHAIN OF CUSTODY RECORD**

## EPA Contract Work: Ecology and Environment

**Contact Name:** Charles LaCerra  
**Contact Phone:** (856) 858-4800

No: 0440.01CP-0021  
Lab: EMSL Analytical  
Lab\_City: Westmont  
Lab\_Phone: (855) 858-4800

Lab #	Sample #	Analyses - For SICW	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	NYT-S104-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:35	1	BAG
✓	NYT-SB3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:12	1	BAG
✓	NYT-CS02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	19:00	1	BAG
✓	NYT-SH1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:22	1	BAG
✓	NYT-SJ3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:40	1	BAG
X	NYT-CS101-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	19:45	1	BAG
✓	NYT-SG2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:40	1	BAG
✓	NYT-SG3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:40	1	BAG
✓	NYT-SH2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:25	1	BAG
✓	NYT-SH3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:34	1	BAG
✓	NYT-S01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:18	1	BAG
✓	NYT-S02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:01	1	BAG
✓	NYT-S03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:50	1	BAG
✓	NYT-S04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	17:35	1	BAG
X	NYT-CS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	18:45	1	BAG
✓	SVB-S09-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:16	1	BAG
✓	DEM-S09-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	15:10	1	BAG
✓	DEM-S06-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	14:37	1	BAG
✓	DEM-S01-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	13:50	1	BAG
✓	DEM-S02-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	13:56	1	BAG

Comments: Refer to C-O-C Attachment A

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049352

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Apr-15-05  
TIME IN: 4:30 pmCLIENT NO: 741LOT NO: 00024

Total Samples:

60DATE /  
TIME DUE: \_\_\_\_\_JOB SITE: 0440.01CPJOB NO: Logged by: ryCONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENTDELIVERED BY: Client

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAIL hedwards@ene.com

Invoice To:

See marketing screen for more info!!LJohnson@ene.com

REVIEWED \_\_\_\_\_

E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00024-001	SFB-SS05-100804	Soil
741-00024-002	SFB-SS04-100804	Soil
741-00024-003	SFB-SS03-100804	Soil
741-00024-004	SFB-SS02-100804	Soil
741-00024-005	SFB-SS01-100804	Soil
741-00024-006	SFB-S02-100804	Soil
741-00024-007	NYB-SS01-100804	Soil
741-00024-008	NYB-S01-100804	Soil
741-00024-009	SFB-CSS01-100804	Soil
741-00024-010	SFB-CS01-100804	Soil
741-00024-011	NYT-SC2-100804	Soil
741-00024-012	NFB-SS05-100804	Soil
741-00024-013	NFB-SS04-100804	Soil
741-00024-014	NFB-SS03-100804	Soil
741-00024-015	NFB-SS02-100804	Soil
741-00024-016	NFB-SS01-100804	Soil
741-00024-017	NFB-S110-100804	Soil
741-00024-018	NFB-S10-100804	Soil
741-00024-019	SFB-S10-100804	Soil
741-00024-020	NFB-S08-100804	Soil
741-00024-021	SFB-CS101-100804	Soil
741-00024-022	NFB-S09-100804	Soil
741-00024-023	SFB-S107-100804	Soil
741-00024-024	SFB-S07-100804	Soil
741-00024-025	SFB-S06-100804	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049352

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Apr-15-05  
TIME IN: 4:30 pmCLIENT NO: 741LOT NO: 00024

Total Samples:

60DATE /  
TIME DUE: \_\_\_\_\_JOB SITE: 0440.01CPLogged by: ryCONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENTDELIVERED BY: Client

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAILhedwards@ene.com

Invoice To:

See marketing screen for more info!!!LJohnson@ene.com

REVIEWED \_\_\_\_\_

E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00024-026	SFB-S08-100804	Soil
741-00024-027	SFB-S05-100804	Soil
741-00024-028	SFB-S04-100804	Soil
741-00024-029	SFB-S03-100804	Soil
741-00024-030	SFB-S01-100804	Soil
741-00024-031	NFB-CSS01-100804	Soil
741-00024-032	SFB-S09-100804	Soil
741-00024-033	NYT-S13-100804	Soil
741-00024-034	NFB-CS01-100804	Soil
741-00024-035	NYT-SJ2-100804	Soil
741-00024-036	NYT-SJ1-100804	Soil
741-00024-037	NYT-SI2-100804	Soil
741-00024-038	NYT-SI1-100804	Soil
741-00024-039	NYT-S1A2-100804	Soil
741-00024-040	NYT-S1G2-100804	Soil
741-00024-041	NYT-S104-100804	Soil
741-00024-042	NYT-SB3-100804	Soil
741-00024-043	NYT-CS02-100804	Soil
741-00024-044	NYT-SH1-100804	Soil
741-00024-045	NYT-SJ3-100804	Soil
741-00024-046	NYT-CS101-100804	Soil
741-00024-047	NYT-SG2-100804	Soil
741-00024-048	NYT-SG3-100804	Soil
741-00024-049	NYT-SH2-100804	Soil
741-00024-050	NYT-SH3-100804	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049352

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Apr-15-05  
TIME IN: 4:30 pmCLIENT NO: 741LOT NO: 00024

Total Samples:

60DATE /  
TIME DUE: \_\_\_\_\_JOB SITE: 0440.01CPLogged by: ryCONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENTDELIVERED BY: Client

## SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAIL hedwards@ene.com

Invoice To:

See marketing screen for more info!!!LJohnson@ene.com

REVIEWED \_\_\_\_\_

E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00024-051	NYT-S01-100804	Soil
741-00024-052	NYT-S02-100804	Soil
741-00024-053	NYT-S03-100804	Soil
741-00024-054	NYT-S04-100804	Soil
741-00024-055	NYT-CS01-100804	Soil
741-00024-056	SVB-S09-100904	Soil
741-00024-057	DEM-S09-100904	Soil
741-00024-058	DEM-S06-100904	Soil
741-00024-059	DEM-S01-100904	Soil
741-00024-060	DEM-S02-100904	Soil

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-001	<u>SFB-SS05-100804</u> Description: Soil							T=21C					
Color:Orange	Homogeneity: Good			Friability: Friable			Texture: Powdery				MacroAsb%		
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected						Non-fibrous% <u>95-99%</u>	Qtz, Calc, Fldsp, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1140							Anal Date: Apr-25-05				Analyst: SF	
Sample Prep Method(s):	Ground											QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-002	<u>SFB-SS04-100804</u> Description: Soil												
Color:Beige	Homogeneity: Good			Friability: Friable			Texture: Powdery				MacroAsb%		
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected						Non-fibrous% <u>95-99%</u>	Qtz, Calc, Fldsp, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1030							Anal Date: Apr-25-05				Analyst: SF	
Sample Prep Method(s):	Ground											QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-003	<u>SFB-SS03-100804</u> Description: Soil												
Color:Beige	Homogeneity: Good			Friability: Friable			Texture: Powdery				MacroAsb%		
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected						Non-fibrous% <u>95-99%</u>	Calc, Fldsp					
Notes	Collection Date/Time: Oct-08-04 /1020							Anal Date: Apr-25-05				Analyst: SF	
Sample Prep Method(s):	Ground											QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-004	<u>SFB-SS02-100804</u> Description: Soil												
Color:Beige	Homogeneity: Good			Friability: Friable			Texture: Powdery				MacroAsb%		
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected						Non-fibrous% <u>95-99%</u>	Qtz, Calc, Fldsp, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1010							Anal Date: Apr-25-05				Analyst: SF	
Sample Prep Method(s):	Ground											QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-005	<u>SFB-SS01-100804</u> Description: Soil												
Color:Beige	Homogeneity: Good			Friability: Friable			Texture: Powdery				MacroAsb%		
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected						Non-fibrous% <u>100-100%</u>	Qtz, Calc, Fldsp, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1050							Anal Date: Apr-25-05				Analyst: SF	
Sample Prep Method(s):	Ground											QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-006	<u>SFB-S02-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1007		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground				QC Date:						

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-007	<u>NB-SS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1250		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground				QC Date:						

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-008	<u>NB-S01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1157		Anal Date: May-04-05		Analyst: SF		
Sample Prep Method(s):	Ground				QC Date:						

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-008O	<u>NB-S01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1157		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground				QC Date:						

Method DS	Morphology Needles	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-009	<u>SFB-CSS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1310		Anal Date: May-04-05		Analyst: SF		
Sample Prep Method(s):	Ground				QC Date:						

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-008	<u>SFB-CSS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.								
Notes	Collection Date/Time:		/	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):			QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-010	<u>SFB-CS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/ 195	Anal Date: May-04-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-010O	<u>SFB-CS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/ 195	Anal Date: Apr-24-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-010Q	<u>SFB-CS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/ 195	Anal Date: May-02-05 Analyst: MB							
Sample Prep Method(s):	Ground		QC Date: 5-04-05								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-011	<u>NY-SC2-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9 Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/ 1615	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-012	<u>NFB-SS05-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 9-9 Qtz, Calc, Fldsp, Other m.p.						
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04		/1215		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-013	<u>NFB-SS04-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/1115		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-014	<u>NFB-SS03-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/1120		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-015	<u>NFB-SS02-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/1105		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-016	<u>NFB-SS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 9-9 Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/1130		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-017	<u>NFB-S110-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos%: <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1040		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-018	<u>NFB-S10-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos%: 1-5%	Other fibers% None Detected		Non-fibrous% 5-5% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1033		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-019	<u>SFB-S10-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos%: <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/095		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-020	<u>NFB-S08-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos%: <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1040		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-021	<u>SFB-CS101-10080</u> Description: Soil										
Color: Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos%: <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1305		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-022	<u>NFB-S09100804</u> Description: Soil			
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.	
Notes			Collection Date/Time: Oct-08-04 /1110	Anal Date: Apr-25-05 Analyst: SF
Sample Prep Method(s):			Ground	QC Date:

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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741-00024-022Q	<u>NFB-S09100804</u> Description: Soil			
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.	
Notes			Collection Date/Time: Oct-08-04 /1110	Anal Date: Apr-25-05 Analyst: MB.
Sample Prep Method(s):			Ground	QC Date: 5-02-05

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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741-00024-023	<u>SFB-S107-100804</u> Description: Soil			
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.	
Notes			Collection Date/Time: Oct-08-04 /1050	Anal Date: Apr-25-05 Analyst: SF
Sample Prep Method(s):			Ground	QC Date:

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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741-00024-024	<u>SFB-S07-100804</u> Description: Soil			
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.	
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /090	Anal Date: Apr-25-05 Analyst: SF
Sample Prep Method(s):			Ground	QC Date:

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-025	<u>SFB-S06-100804</u> Description: Soil			
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.	
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1045	Anal Date: Apr-25-05 Analyst: SF
Sample Prep Method(s):			Ground	QC Date:

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-026	<u>SFB-S08-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04		/095	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-027	<u>SFB-S05-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/1035	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-028	<u>SFB-S04-100804</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/1025	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-028Q	<u>SFB-S04-100804</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/1025	Anal Date: Apr-25-05 Analyst: MB							
Sample Prep Method(s):	Ground		QC Date: 5-02-05								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-029	<u>SFB-S03-100804</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04		/1015	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-030	<u>SFB-S01-100804</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04		/1040	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-031	<u>NFB-CSS01-100804</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/1505	Anal Date: May-02-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-032	<u>SFB-S09100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/095	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-033	<u>NY-S13-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04		/1710	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00024-034	<u>NFB-CS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04		/1500	Anal Date: Apr-25-05 Analyst: SF							
Sample Prep Method(s):	Ground		QC Date:								
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-035	<u>NYT-SJ2-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.											
Notes	Collection Date/Time: Oct-08-04 /1528				Anal Date: May-02-05 Analyst: SF									
Sample Prep Method(s):	Ground										QC Date:			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-036	<u>NYT-SJ1-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.											
Notes	Collection Date/Time: Oct-08-04 /1720				Anal Date: Apr-25-05 Analyst: SF									
Sample Prep Method(s):	Ground										QC Date:			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-037	<u>NYT-SI2-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Calc, Fldsp, Other m.p.											
Notes	Collection Date/Time: Oct-08-04 /1656				Anal Date: May-02-05 Analyst: SF									
Sample Prep Method(s):	Ground										QC Date:			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-037Q	<u>NYT-SI2-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.											
Notes	Collection Date/Time: Oct-08-04 /1656				Anal Date: May-02-05 Analyst: MB									
Sample Prep Method(s):	Ground										QC Date: 5-02-05			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-038	<u>NYT-SI1-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.											
Notes	Collection Date/Time: Oct-08-04 /1646				Anal Date: Apr-25-05 Analyst: SF									
Sample Prep Method(s):	Ground										QC Date:			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-039	<u>NY-S1A2-10080</u> 4 Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/190		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite

-039Q

DShapiro 6/13/05

741-00024-039Q	<u>NY-S1A2-10080</u> 4 Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/190		Anal Date: Apr-25-05		Analyst: MB		
Sample Prep Method(s):	Ground										
Method DS	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Method DS Morphology Color Pleoch RI Par RI Prp Biref Sign ExtAn % % Fibers Type

741-00024-040	<u>NY-S1G2-10080</u> 4 Description: Soil										
Color: Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/1740		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite

Method DS Morphology Color Pleoch RI Par RI Prp Biref Sign ExtAn % % Fibers Type

741-00024-041	<u>NY-S104-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-08-04		/1735		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite

Method DS Morphology Color Pleoch RI Par RI Prp Biref Sign ExtAn % % Fibers Type

741-00024-041Q	<u>NY-S104-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Other m.p.						
Notes			Collection Date/Time:		/		Anal Date: May-02-05		Analyst: MB		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite

Method DS Morphology Color Pleoch RI Par RI Prp Biref Sign ExtAn % % Fibers Type

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-042	<u>NY-SB3-100804</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-08-04				/1612		Anal Date: May-02-05		Analyst: SF		
Sample Prep Method(s):	Ground						QC Date:				

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-043	<u>NY-CS02-100804</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-08-04				/190		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground						QC Date:				

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-044	<u>NY-SH-100804</u>	Description: Soil									
Color: Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-08-04				/1622		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground						QC Date:				

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-045	<u>NY-SJ3-100804</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous%		9-9% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-08-04				/1740		Anal Date: Apr-25-05		Analyst: SF		
Sample Prep Method(s):	Ground						QC Date:				

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00024-045Q	<u>NY-SJ3-100804</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous%		9-9% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-08-04				/1740		Anal Date: Apr-25-05		Analyst: MB		
Sample Prep Method(s):	Ground						QC Date: 5-02-05				

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-046	<u>NY-CS101-1008</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/105		Anal Date: May-02-05				Analyst: SF
Sample Prep Method(s):	Ground										QC Date:

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-047	<u>NY-SG2-100804</u> Description: Soil										
Color: Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1740		Anal Date: May-02-05				Analyst: SF
Sample Prep Method(s):	Ground										QC Date:

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-048	<u>NY-SG3-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1740		Anal Date: May-02-05				Analyst: SF
Sample Prep Method(s):	Ground										QC Date:

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00024-049	<u>NY-SB-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1625		Anal Date: Apr-26-05				Analyst: SF
Sample Prep Method(s):	Ground										QC Date:

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00024-050	<u>NY-SB-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04				/1634		Anal Date: Apr-26-05				Analyst: SF
Sample Prep Method(s):	Ground										QC Date:

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-051	<u>NY-S01-100804</u>	Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1718								Anal Date: Apr-26-05	Analyst: SF		
Sample Prep Method(s):	Ground										QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-052	<u>NY-S02-100804</u>	Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1601								Anal Date: Apr-26-05	Analyst: SF		
Sample Prep Method(s):	Ground										QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-052Q	<u>NY-S02-100804</u>	Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1601								Anal Date: Apr-26-05	Analyst: MB		
Sample Prep Method(s):	Ground										QC Date: 5-02-05	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-053	<u>NY-S03-100804</u>	Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1650								Anal Date: Apr-26-05	Analyst: SF		
Sample Prep Method(s):	Ground										QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-054	<u>NY-S04-100804</u>	Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1735								Anal Date: May-02-05	Analyst: SF		
Sample Prep Method(s):	Ground										QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-055	<u>NY-CS01-10080</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/185		Anal Date: Apr-26-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-056	<u>SE-S0910094</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04				/1716		Anal Date: Apr-26-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00024-057	<u>DEM-S0910094</u> Description: Soil										
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9 Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1510		Anal Date: Apr-26-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00024-058	<u>DEM-S06-10094</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1437		Anal Date: May-02-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00024-059	<u>DEM-S01-10094</u> Description: Soil										
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-08-04				/1350		Anal Date: Apr-26-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00024-060

DEM-S02-10094 Description: **Soil**

Color:Beige	Homogenity: Good	Friability: Friable	Texture: Powdery	MacroAsb%
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.	
Notes	Collection Date/Time: Oct-0004 /1356			Anal Date: May-02-05 Analyst: SF
Sample Prep Method(s):	Ground			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	≤1	Actinolite

Description:											
Color:	Homogenity:	Friability:	Texture:	MacroAsb%							
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:			/	Anal Date:	Analyst:					
Sample Prep Method(s):											

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogenity:	Friability:	Texture:	MacroAsb%							
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:			/	Anal Date:	Analyst:					
Sample Prep Method(s):											

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogenity:	Friability:	Texture:	MacroAsb%							
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:			/	Anal Date:	Analyst:					
Sample Prep Method(s):											

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogenity:	Friability:	Texture:	MacroAsb%							
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:			/	Anal Date:	Analyst:					
Sample Prep Method(s):											

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Date: May/21/2005

**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

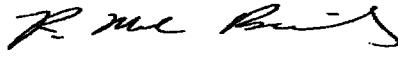
Analyzed by NIOSH 9002 Method

Page: 1 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 58 Reg. Samples Analyzed: 58 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049351 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b> <b>LAB</b>
NYB-S03-100804 Lab ID # 741-00023-001	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1150 4)May-02-05 Soil Soil-Brown
NYB-SS04-100804 Lab ID # 741-00023-002	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1320 4) Apr-20-05 Soil Soil-Beige
NYB-SS03-100804 Lab ID # 741-00023-003	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1313 4) Apr-20-05 Soil Soil-Beige
NYB-SS02-100804 Lab ID # 741-00023-004	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1255 4) Apr-20-05 Soil Soil-Beige
NYB-S104-100804 Lab ID # 741-00023-005	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1208 4)Apr-20-05 Soil Soil-Beige
NYB-S10-100804 Lab ID # 741-00023-006	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1210 4)Apr-20-05 Soil Soil-Beige
NYB-S09-100804 Lab ID # 741-00023-007	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1155 4)Apr-20-05 Soil Soil-Beige
NYB-S08-100804 Lab ID # 741-00023-008	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1209 4)Apr-21-05 Soil Soil-Brown
NYB-S07-100804 Lab ID # 741-00023-009	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1212 4)Apr-21-05 Soil Soil-Brown
NYB-S06-100804 Lab ID # 741-00023-010	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1204 4)Apr-21-05 Soil Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: 2 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 58 Reg. Samples Analyzed: 58 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049351 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
NYB-SS05-100804 Lab ID # 741-00023-011	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1328 4)Apr-21-05 Soil-Brown
NYB-S04-100804 Lab ID # 741-00023-012	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1205 4)Apr-21-05 Soil-Brown
NYB-SS104-100804 Lab ID # 741-00023-013	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1320 4)Apr-21-05 Soil-Brown
CPS-CS01-100804 Lab ID # 741-00023-014	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1430 4)May-02-05 Soil-Brown
CPS-S101-100804 Lab ID # 741-00023-015	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1135 4)Apr-21-05 Soil-Brown
CPS-S07-100804 Lab ID # 741-00023-016	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1134 4)Apr-21-05 Soil-Brown
CPS-S06-100804 Lab ID # 741-00023-017	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1133 4)Apr-21-05 Soil-Brown
CPS-S05-100804 Lab ID # 741-00023-018	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1132 4)Apr-21-05 Soil-Brown
CPS-S04-100804 Lab ID # 741-00023-019	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1131 4)Apr-21-05 Soil-Brown
CPS-S03-100804 Lab ID # 741-00023-020	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1135 4)Apr-21-05 Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer R. Mc. B.

Analyst S. S.

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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: 3 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 58 Reg. Samples Analyzed: 58 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049351 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b> <b>LAB</b>
CPS-S02-100804 Lab ID # 741-00023-021	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1133 4)Apr-21-05 Soil Soil-Brown
NYB-S05-100804 Lab ID # 741-00023-022	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1200 4) Apr-21-05 Soil-Beige
NYT-SC1-100804 Lab ID # 741-00023-023	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1608 4) Apr-21-05 Soil-Brown
NYT-SF3-100804 Lab ID # 741-00023-024	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1730 4) Apr-21-05 Soil-Brown
NYT-SF2-100804 Lab ID # 741-00023-025	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1715 4) Apr-21-05 Soil-Brown
NYT-SF1-100804 Lab ID # 741-00023-026	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1711 4) Apr-21-05 Soil-Brown
NYT-S1E1-100804 Lab ID # 741-00023-027	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1900 4) Apr-21-05 Soil-Brown
NYT-SE3-100804 Lab ID # 741-00023-028	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1705 4) Apr-21-05 Soil-Beige
NYT-SE2-100804 Lab ID # 741-00023-029	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1703 4) Apr-21-05 Soil-Brown
NYT-SE1-100804 Lab ID # 741-00023-030	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1655 4) Apr-21-05 Soil-Beige

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer R. Mc. Bain

Analyst Steve S.

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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: **4 of 6**

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 58 Reg. Samples Analyzed: 58 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. <b>049351</b> Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b> <b>LAB</b>
NYT-SD3-100804 Lab ID # 741-00023-031	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1645 4)Apr-21-05 Soil Soil-Brown
NYT-SD2-100804 Lab ID # 741-00023-032	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1640 4) Apr-21-05 Soil Soil-Brown
NYB-SS06-100804 Lab ID # 741-00023-033	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1335 4) Apr-21-05 Soil Soil-Brown
NYT-SC3-100804 Lab ID # 741-00023-034	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1626 4) Apr-22-05 Soil Soil-Orange
NYT-SG1-100804 Lab ID # 741-00023-035	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1732 4) Apr-22-05 Soil Soil-Orange
NYT-SB2-100804 Lab ID # 741-00023-036	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1601 4) Apr-21-05 Soil Soil-Brown
NYT-SB1-100804 Lab ID # 741-00023-037	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1553 4) Apr-21-05 Soil Soil-Brown
NYT-SA3-100804 Lab ID # 741-00023-038	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1548 4) Apr-21-05 Soil Soil-Brown
NYT-SA2-100804 Lab ID # 741-00023-039	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1526 4) Apr-21-05 Soil Soil-Brown
NYT-SA1-100804 Lab ID # 741-00023-040	1-5% <b>Actinolite</b>	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1530 4) Apr-21-05 Soil Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer R. Mc Reid

Analyst Steve G.

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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

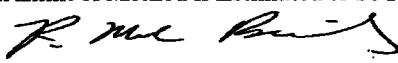
Analyzed by NIOSH 9002 Method

Page: **5 of 6**

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 58 Reg. Samples Analyzed: 58 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049351 Date Submitted: Apr-15-05 Date Reported: May-02-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b> <b>LAB</b>
NYB-CSS01-100804 Lab ID # 741-00023-041	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1306 4)May-02-05 Soil-Brown
NYB-CS01-100804 Lab ID # 741-00023-042	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1305 4) Apr-22-05 Soil-Brown
NFB-SS06-100804 Lab ID # 741-00023-043	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1245 4) Apr-22-05 Soil-Brown
NYB-SS07-100804 Lab ID # 741-00023-044	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1325 4) Apr-22-05 Soil-Brown
NYT-SD1-100804 Lab ID # 741-00023-045	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1635 4)Apr-22-05 Soil-Brown
SFB-SS07-100804 Lab ID # 741-00023-046	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1055 4)Apr-22-05 Soil-Orange
CPS-S01-100804 Lab ID # 741-00023-047	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1130 4)Apr-22-05 Soil-Brown
NFB-S07-100804 Lab ID # 741-00023-048	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1102 4)Apr-22-05 Soil-Brown
NFB-S06-100804 Lab ID # 741-00023-049	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1112 4)Apr-22-05 Soil-Brown
NFB-S05-100804 Lab ID # 741-00023-050	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1102 4)Apr-22-05 Soil-Brown

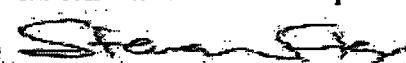
Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



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Analyst



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

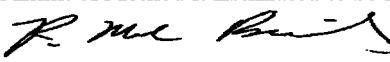
Analyzed by NIOSH 9002 Method

Page: **6 of 6**

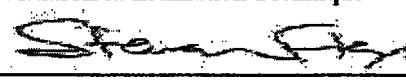
Contact: Mr. Howard Edwards	Samples Indicated:	58	Report No.	049351
Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Reg. Samples Analyzed:	58	Date Submitted:	Apr-15-05
	Split Layers Analyzed:	0	Date Reported:	May-02-05
	Job Site / No.	0440.01CP		
<b>SAMPLE ID</b>	<b>% ASBESTOS</b>	<b>TYPE</b>	<b>OTHER DATA</b>	
			<b>FIELD</b>	<b>LAB</b>
NFB-S04-100804 Lab ID # 741-00023-051	1-5%	Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3)Oct-08-04 1030 4)Apr-22-05	Soil Soil-Brown
NFB-S03-100804 Lab ID # 741-00023-052	1-5%	Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1058 4) Apr-22-05	Soil Soil-Brown
NFB-S02-100804 Lab ID # 741-00023-053	<1%	Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1100 4) Apr-22-05	Soil Soil-Brown
NFB-S01-100804 Lab ID # 741-00023-054	<1%	Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1045 4) Apr-22-05	Soil Soil-Brown
NFB-SS07-100804 Lab ID # 741-00023-055	<1%	Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1148 4) Apr-22-05	Soil Soil-Beige
SFB-SS107-100804 Lab ID # 741-00023-056	<1%	Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1600 4) Apr-22-05	Soil Soil-Beige
NYB-S02-100804 Lab ID # 741-00023-057	1-5%	Actinolite	1)None Detected 2)95-99% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1156 4) Apr-22-05	Soil Soil-Brown
SFB-SS06-100804 Lab ID # 741-00023-058	<1%	Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-08-04 1050 4) Apr-22-05	Soil Soil-Orange
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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With Offices in Reno, NV (775) 359-3377

EDH Investigation SOIL

EPA Contract Work:  
Ecology and Environment

## CHAIN OF CUSTODY RECORD

Site #: 0440.01CP

Contact Name: Charles LaCerra

Contact Phone: (856) 858-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab\_City: Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #	Analyses - Per SOC	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	EDH-ZP2-100704	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/7/2004	19:50	1	BAG
✓	EDH-ZP3-100704	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/7/2004	13:30	1	BAG
✓	NYB-S03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:50	1	BAG
✓	NYB-SS04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:20	1	BAG
✓	NYB-SS03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:13	1	BAG
✓	NYB-SS02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:55	1	BAG
✓	NYB-S104-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:08	1	BAG
✓	NYB-S10-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:10	1	BAG
✓	NYB-S09-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:55	1	BAG
✓	NYB-S08-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:09	1	BAG
✓	NYB-S06-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:12	1	BAG
✓	NYB-SS05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:04	1	BAG
✓	NYB-S04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:28	1	BAG
✓	NYB-SS104-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:05	1	BAG
X	CPS-CS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:20	1	BAG
✓	CPS-S101-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	14:30	1	BAG
✓	CPS-S07-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:35	1	BAG
✓	CPS-S06-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:34	1	BAG
✓	CPS-S05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:33	1	BAG
					11:32		1 BAG

Comments:	Refer to CO-C Attachment 4	SAMPLES TRANSFERRED FROM	
		CHAIN OF CUSTODY #	
0440.01CP-0015			

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	12/7/04	John S.	12/7/04	11:26		All/Return	Charles LaCerra	3/11/05	John S./L	4/14/05	0940
	4/15/05	Carol W.	4/15/05	14:27							

Note EDH-ZP2-100704 and EDH-ZP3-100704 sent to Owen Crankshaw with RTI per Steve Remaley's request on 04/12/05 Lisa m. Johnson

EDH Investigation SOIL

EPA Contract Work:  
Ecology and Environment

## **CHAIN OF CUSTODY RECORD**

Site #: 0440.01CP

**Contact Name: Charles LaCenta**

Contact Phone: (856) 858-4800

No: 0440.01CP-0021

Lab: EMGL, Analytical

## Lab\_City: Westmont

Lab Phone: (858) 658-4800

Lab #	Sample #	Analyses — <i>for Soil</i>	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	CPS-S04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	11:31	1	BAG
✓	CPS-S03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	11:35	1	BAG
✓	CPS-S02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	11:33	1	BAG
✓	NYB-S05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	12:00	1	BAG
✓	NYT-SC1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	16:08	1	BAG
✓	NYT-SF3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	17:30	1	BAG
✓	NYT-SF2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	17:15	1	BAG
✓	NYT-SF1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	17:11	1	BAG
✓	NYT-S1E1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	19:00	1	BAG
✓	NYT-SE3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	17:05	1	BAG
✓	NYT-SE2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	17:03	1	BAG
✓	NYT-SE1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	16:55	1	BAG
✓	NYT-SD3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	16:45	1	BAG
✓	NYT-SD2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	16:40	1	BAG
✓	NYB-SS06-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	13:35	1	BAG
✓	NYT-SC3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	16:26	1	BAG
✓	NYT-SG1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	17:32	1	BAG
✓	NYT-SB2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	16:01	1	BAG
✓	NYT-SB1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	15:53	1	BAG
✓	NYT-SA3-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil ✓	10/8/2004	15:48	1	BAG

Comments: Refer to C-O-C Attachment A

**SAMPLES TRANSFERRED FROM**

CHART OF CUSTODY ■

C44C.C1CP-0015

EDH Investigation 5011

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Site #: 0440 01CEP

Contact Name: Charles LaCarra

Contact Phone: (856) 858-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab\_City\_Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #.	Analyses - Per SGW	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	NYT-SA2-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	15:26	1	BAG
✓	NYT-SA1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	15:30	1	BAG
✗	NYB-CSS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:06	1	BAG
✗	NYB-CS01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:05	1	BAG
✓	NFB-SS05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	12:45	1	BAG
✓	NYB-SS07-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	13:25	1	BAG
✓	NYT-SD1-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	16:35	1	BAG
✓	SFB-SS07-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:55	1	BAG
✓	CPS-S01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:30	1	BAG
✓	NFB-S07-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:02	1	BAG
✓	NFB-S06-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:12	1	BAG
✓	NFB-S05-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:02	1	BAG
✓	NFB-S04-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:30	1	BAG
✓	NFB-S03-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:58	1	BAG
✓	NFB-S02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:00	1	BAG
✓	NFB-S01-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:45	1	BAG
✓	NFB-SS07-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:48	1	BAG
✓	SFB-SS107-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	16:00	1	BAG
✓	NYB-S02-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	11:56	1	BAG
✓	SFB-SS06-100804	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/8/2004	10:50	1	BAG

#### Comments

Refer to C-O-C Attachment A

**SAMPLES TRANSFERRED FROM**

CHAIN OF CUSTODY 4

0440.61CP - OCT 1974

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049351

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #:

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Apr-15-05  
TIME IN: 4:30 pmCLIENT NO: 741LOT NO: 00023

Total Samples:

58DATE /  
TIME DUE:JOB SITE: 0440.01CP

JOB NO:

Logged by: ryCONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENTDELIVERED BY: FedEx S

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAILhedwards@ene.com

Invoice To:

See marketing screen for more info!!!LJohnson@ene.com

REVIEWED \_\_\_\_\_

E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00023-001	NYB-S03-100804	Soil
741-00023-002	NYB-SS04-100804	Soil
741-00023-003	NYB-SS03-100804	Soil
741-00023-004	NYB-SS02-100804	Soil
741-00023-005	NYB-S104-100804	Soil
741-00023-006	NYB-S10-100804	Soil
741-00023-007	NYB-S09-100804	Soil
741-00023-008	NYB-S08-100804	Soil
741-00023-009	NYB-S07-100804	Soil
741-00023-010	NYB-S06-100804	Soil
741-00023-011	NYB-SS05-100804	Soil
741-00023-012	NYB-S04-100804	Soil
741-00023-013	NYB-SS104-100804	Soil
741-00023-014	CPS-CS01-100804	Soil
741-00023-015	CPS-S101-100804	Soil
741-00023-016	CPS-S07-100804	Soil
741-00023-017	CPS-S06-100804	Soil
741-00023-018	CPS-S05-100804	Soil
741-00023-019	CPS-S04-100804	Soil
741-00023-020	CPS-S03-100804	Soil
741-00023-021	CPS-S02-100804	Soil
741-00023-022	NYB-S05-100804	Soil
741-00023-023	NYT-SC1-100804	Soil
741-00023-024	NYT-SF3-100804	Soil
741-00023-025	NYT-SF2-100804	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049351

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Apr-15-05  
TIME IN: 4:30 pmCLIENT NO: 741LOT NO: 00023

Total Samples:

58DATE /  
TIME DUE: \_\_\_\_\_JOB SITE: 0440.01CPJOB NO: Logged by: ryCONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENTDELIVERED BY: FedEx S

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAIL hedwards@ene.com  
See marketing screen for more info!!

Invoice To:

LJohnson@ene.com

REVIEWED \_\_\_\_\_

E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00023-026	NYT-SF1-100804	Soil
741-00023-027	NYT-S1E1-100804	Soil
741-00023-028	NYT-SE3-100804	Soil
741-00023-029	NYT-SE2-100804	Soil
741-00023-030	NYT-SE1-100804	Soil
741-00023-031	NYT-SD3-100804	Soil
741-00023-032	NYT-SD2-100804	Soil
741-00023-033	NYB-SS06-100804	Soil
741-00023-034	NYT-SC3-100804	Soil
741-00023-035	NYT-SG1-100804	Soil
741-00023-036	NYT-SB2-100804	Soil
741-00023-037	NYT-SB1-100804	Soil
741-00023-038	NYT-SA3-100804	Soil
741-00023-039	NYT-SA2-100804	Soil
741-00023-040	NYT-SA1-100804	Soil
741-00023-041	NYB-CSS01-100804	Soil
741-00023-042	NYB-CS01-100804	Soil
741-00023-043	NFB-SS06-100804	Soil
741-00023-044	NYB-SS07-100804	Soil
741-00023-045	NYT-SD1-100804	Soil
741-00023-046	SFB-SS07-100804	Soil
741-00023-047	CPS-S01-100804	Soil
741-00023-048	NFB-S07-100804	Soil
741-00023-049	NFB-S06-100804	Soil
741-00023-050	NFB-S05-100804	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049351

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #:

ANALYSIS REQUESTED: **PLM-STANDARD** URGENCY: **6-10 DAYS** DATE / **Apr-15-05**  
 CLIENT NO: **741** LOT NO: **00023** Total Samples: **58** TIME IN: **4:30 pm**  
 JOB SITE: **0440.01CP** DATE /  
 CONTACT: **Mr. Howard Edwards**  
 JOB NO: Logged by: **ry** TIME DUE:  
 SAMPLE CONDITIONS: **EXCELLENT** DELIVERED BY: **FedEx S**

## SPECIAL INSTRUCTIONS

FAX **415-981-0801**  E-MAIL **hedwards@ene.com** **See marketing screen for more info!!!** Invoice To: **LJohnson@ene.com**

REVIEWED \_\_\_\_\_ E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00023-051	NFB-S04-100804	Soil
741-00023-052	NFB-S03-100804	Soil
741-00023-053	NFB-S02-100804	Soil
741-00023-054	NFB-S01-100804	Soil
741-00023-055	NFB-SS07-100804	Soil
741-00023-056	SFB-SS107-100804	Soil
741-00023-057	NYB-S02-100804	Soil
741-00023-058	SFB-SS06-100804	Soil

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-001	<u>NYB-S03-100804</u> Description: <b>Soil</b>										T=20C	
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%	
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes			Collection Date/Time: Oct-08-04		/1150		Anal Date: Apr-20-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<u>1</u>	Actinolite

741-00023-002	<u>NYB-SS04-100804</u> Description: <b>Soil</b>											
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%	
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes			Collection Date/Time: Oct-08-04		/1320		Anal Date: Apr-20-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	<u>5</u>	Actinolite

741-00023-003	<u>NYB-SS03-100804</u> Description: <b>Soil</b>											
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%	
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04		/1313		Anal Date: Apr-20-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00023-003Q	<u>NYB-SS03-100804</u> Description: <b>Soil</b>											
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%	
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04		/1313		Anal Date: Apr-20-05		Analyst: MB			
Sample Prep Method(s):			Ground				QC Date: 5-02-05					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00023-004	<u>NYB-SS02-100804</u> Description: <b>Soil</b>											
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%	
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04		/1255		Anal Date: Apr-20-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-005	<u>NYB-S104-100804</u> Description: Soil									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1208								Anal Date: Apr-20-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-006	<u>NYB-S10-100804</u> Description: Soil									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1210								Anal Date: Apr-20-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00023-007	<u>NYB-S09-100804</u> Description: Soil									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1155								Anal Date: Apr-20-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00023-008	<u>NYB-S08-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1209								Anal Date: Apr-21-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-009	<u>NYB-S07-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1212								Anal Date: Apr-21-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-009Q	<u>NYB-S07-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected			Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1212				Anal Date: Apr-21-05 Analyst: MB								
Sample Prep Method(s):	Ground										QC Date: 5-02-05		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00023-010	<u>NYB-S06-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected			Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1204				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	1	5	Actinolite		

741-00023-011	<u>NYB-SS05-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected			Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1328				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00023-012	<u>NYB-S04-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected			Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1205				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00023-013	<u>NYB-SS104-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected			Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1320				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-014	<u>CPS-CS01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes	Collection Date/Time: Oct-08-04			/1430		Anal Date: Apr-21-05			Analyst: SF		
Sample Prep Method(s):	Ground										

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00023-015	<u>CPS-S101-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes	Collection Date/Time: Oct-08-04			/1135		Anal Date: Apr-21-05			Analyst: SF		
Sample Prep Method(s):	Ground										

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00023-016	<u>CPS-S07-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes	Collection Date/Time: Oct-08-04			/1134		Anal Date: Apr-21-05			Analyst: SF		
Sample Prep Method(s):	Ground										

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00023-017	<u>CPS-S06-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04			/1133		Anal Date: Apr-21-05			Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00023-018	<u>CPS-S05-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04			/1132		Anal Date: Apr-21-05			Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-019	<u>CPS-S04-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04		/1131		Anal Date: Apr-21-05		Analyst: SF					
Sample Prep Method(s):			Ground				QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type			

741-00023-019Q	<u>CPS-S04-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04		/1131		Anal Date: Apr-21-05		Analyst: MB					
Sample Prep Method(s):			Ground				QC Date: 5-02-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type			

741-00023-020	<u>CPS-S03-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Timie: Oct-08-04		/1135		Anal Date: Apr-21-05		Analyst: SF					
Sample Prep Method(s):			Ground				QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type			

741-00023-021	<u>CPS-S02-100804</u>	Description: <b>Soil</b>												
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous%		95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes			Collection Date/Time: Oct-08-04		/1133		Anal Date: Apr-21-05		Analyst: SF					
Sample Prep Method(s):			Ground				QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type			
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite			

741-00023-022	<u>NB-S05-100804</u>	Description: <b>Soil</b>												
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes			Collection Date/Time: Oct-08-04		/1200		Anal Date: Apr-21-05		Analyst: SF					
Sample Prep Method(s):			Ground				QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type			
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite			

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-022Q	<u>NYB-S05-100804</u> Description: Soil										
Color:Beige	Homogeneity:Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1200	Anal Date: Apr-21-05 Analyst: MB							
Sample Prep Method(s):			Ground	QC Date: 5-02-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-023	<u>NYT-SC1-100804</u> Description: Soil										
Color:Brown	Homogeneity:Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1608	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00023-023Q	<u>NYT-SC1-100804</u> Description: Soil										
Color:Brown	Homogeneity:Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1608	Anal Date: Apr-21-05 Analyst: MB							
Sample Prep Method(s):			Ground	QC Date: 5-02-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-024	<u>NYT-SF3-100804</u> Description: Soil										
Color:Brown	Homogeneity:Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1730	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-025	<u>NYT-SF2-100804</u> Description: Soil										
Color:Brown	Homogeneity:Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1715	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-026	<u>NYT-SF1-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <1%	Other fibers% None Detected			Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1711				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00023-027	<u>NYT-S1E1-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% 1-5%	Other fibers% None Detected			Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes	Collection Date/Time: Oct-08-04 /1900				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite		

741-00023-027Q	<u>NYT-S1E1-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% 1-5%	Other fibers% None Detected			Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.									
Notes	Collection Date/Time: Oct-08-04 /1900				Anal Date: Apr-21-05 Analyst: MB								
Sample Prep Method(s):	Ground										QC Date: 5-02-05		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00023-028	<u>NYT-SE3-100804</u>	Description: <b>Soil</b>											
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <1%	Other fibers% None Detected			Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes	Collection Date/Time: Oct-08-04 /1705				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite		

741-00023-029	<u>NYT-SE2-100804</u>	Description: <b>Soil</b>											
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery				MacroAsb%						
Total Asbestos% <1%	Other fibers% None Detected			Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.									
Notes	Collection Date/Time: Oct-08-04 /1703				Anal Date: Apr-21-05 Analyst: SF								
Sample Prep Method(s):	Ground										QC Date:		
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite		

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-030	<u>NYT-SE1-100804</u> Description: Soil									
Color:Beige	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1655								Anal Date: Apr-21-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00023-031	<u>NYT-SD3-100804</u> Description: Soil									
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1645								Anal Date: Apr-21-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00023-032	<u>NYT-SD2-100804</u> Description: Soil									
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1640								Anal Date: Apr-21-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00023-032Q	<u>NYT-SD2-100804</u> Description: Soil									
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes	Collection Date/Time: Oct-08-04 /1640								Anal Date: Apr-21-05	Analyst: MB
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00023-033	<u>NYB-SS06-100804</u> Description: Soil									
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.							
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1335								Anal Date: Apr-21-05	Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-034	<u>NYT-SC3-100804</u> Description: Soil										
Color:Orange	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1626	Anal Date: Apr-22-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite

741-00023-035	<u>NYT-SG1-100804</u> Description: Soil										
Color:Orange	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1732	Anal Date: Apr-22-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite

741-00023-036	<u>NYT-SB2-100804</u> Description: Soil										
Color:Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1601	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-037	<u>NYT-SB1-100804</u> Description: Soil										
Color:Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1553	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-037Q	<u>NYT-SB1-100804</u> Description: Soil										
Color:Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1553	Anal Date: Apr-21-05 Analyst: MB							
Sample Prep Method(s):			Ground	QC Date: 5-02-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-038	<u>NYT-SA3-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1548	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-039	<u>NYT-SA2-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1526	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-040	<u>NYT-SA1-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1530	Anal Date: Apr-21-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-040Q	<u>NYT-SA1-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1530	Anal Date: Apr-21-05 Analyst: MB							
Sample Prep Method(s):			Ground	QC Date: 5-02-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-041	<u>NYB-CSS01-10081</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected		Non-fibrous% 98-99% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1306	Anal Date: May-02-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-041Q	<u>NYB-CSS01-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Other m.p.					
Notes			Collection Date/Time:		/			Anal Date: May-02-05		Analyst: MB
Sample Prep Method(s):										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-042	<u>NYB-CS01-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.					
Notes			Collection Date/Time:		Oct-08-04 / 1305			Anal Date: Apr-22-05		Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-043	<u>NFB-SS06-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery			MacroAsb%		
Total Asbestos% 1-5%	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.					
Notes			Collection Date/Time:		Oct-08-04 / 1245			Anal Date: Apr-22-05		Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00023-044	<u>NYB-SS07-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery			MacroAsb%		
Total Asbestos% 1-5%	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.					
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time:		Oct-08-04 / 1325			Anal Date: Apr-22-05		Analyst: SF
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00023-044Q	<u>NYB-SS07-100804</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery			MacroAsb%		
Total Asbestos% 1-5%	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.					
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time:		Oct-08-04 / 1325			Anal Date: Apr-22-05		Analyst: MB
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-045	<u>NYT-SD1-100804</u> Description: <b>Soil</b>									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1635					Anal Date: Apr-22-05 Analyst: SF				
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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741-00023-046	<u>SFB-SS07-100804</u> Description: <b>Soil</b>									
Color: Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1055					Anal Date: Apr-22-05 Analyst: SF				
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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741-00023-047	<u>CPS-S01-100804</u> Description: <b>Soil</b>									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1130					Anal Date: Apr-22-05 Analyst: SF				
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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741-00023-048	<u>NFB-S07-100804</u> Description: <b>Soil</b>									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.					
Notes	Collection Date/Time: Oct-08-04 /1102					Anal Date: Apr-22-05 Analyst: SF				
Sample Prep Method(s):	Ground									

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% <1	Fibers Type Actinolite
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741-00023-049	<u>NFB-S06-100804</u> Description: <b>Soil</b>									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.					
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04 /1112					Anal Date: Apr-22-05 Analyst: SF				
Sample Prep Method(s):	Ground									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-049Q	<u>NFB-S06100804</u>	Description: <b>Soil</b>										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04	/1112	Anal Date: Apr-22-05	Analyst: MB								
Sample Prep Method(s):	Ground	QC Date: 5-02-05										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00023-050	<u>NFB-S05-100804</u>	Description: <b>Soil</b>										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04	/1102	Anal Date: Apr-22-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00023-051	<u>NFB-S04-100804</u>	Description: <b>Soil</b>										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% 1-5%	Other fibers% None Detected	Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.										
Notes	Collection Date/Time: Oct-08-04	/1030	Anal Date: Apr-22-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite	

741-00023-052	<u>NFB-S03-100804</u>	Description: <b>Soil</b>										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% 1-5%	Other fibers% None Detected	Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-08-04	/1058	Anal Date: Apr-22-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00023-053	<u>NFB-S02-100804</u>	Description: <b>Soil</b>										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.										
Notes	Collection Date/Time: Oct-08-04	/1100	Anal Date: Apr-22-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite	

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-054	<u>NFB-S01-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1045	Anal Date: Apr-22-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00023-055	<u>NFB-SS07-100804</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /1148	Anal Date: Apr-22-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-056	<u>SFB-SS107-10080</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-08-04 /180	Anal Date: Apr-22-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

056Q      *designated 6/13/05*

741-00023-05Q	<u>SFB-SS107-10080</u> Description: Soil										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.								
Notes Fib(Op) Prop. Same as in Previous Sp.			Collection Date/Time: /	Anal Date: Apr-22-05 Analyst: MB							
Sample Prep Method(s):			Ground	QC Date: 5-02-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00023-057	<u>NB-S02-100804</u> Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-08-04 /1156	Anal Date: Apr-22-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00023-058	<u>SFB-SS0610080</u> 4 Description: Soil										
Color:Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes	Collection Date/Time: Oct-08-04 /1050				Anal Date: Apr-22-05				Analyst: SF		
Sample Prep Method(s):	Ground										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	≤1	Actinolite

741-00023-058Q	<u>SFB-SS0610080</u> 4 Description: Soil										
Color:Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100%								
Notes	Collection Date/Time:				Anal Date: May-21-05				Analyst: SF		
Sample Prep Method(s):	QC Date: 5-21-05										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Description:											
Color:	Homogeneity:		Friability:		Texture:						MacroAsb%
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:				/				Anal Date:		Analyst:
Sample Prep Method(s):	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogeneity:		Friability:		Texture:						MacroAsb%
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:				/				Anal Date:		Analyst:
Sample Prep Method(s):	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogeneity:		Friability:		Texture:						MacroAsb%
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time:				/				Anal Date:		Analyst:
Sample Prep Method(s):	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Date: May/21/2005

**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

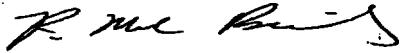
Analyzed by NIOSH 9002 Method

Page: 1 of 4

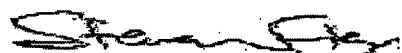
Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 40 Reg. Samples Analyzed: 40 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049487 Date Submitted: Apr-15-05 Date Reported: May-03-05	
SAMPLE ID	% ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
DEM-S03-100904 Lab ID # 741-00025-001	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1403 4)May-03-05	Soil Soil-Beige
DEM-S04-100904 Lab ID # 741-00025-002	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1415 4) Apr-27-05	Soil Soil-Brown
DEM-S05-100904 Lab ID # 741-00025-003	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1427 4) Apr-27-05	Soil Soil-Beige
SVB-S10-100904 Lab ID # 741-00025-004	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1720 4) May-03-05	Soil Soil-Brown
DEM-S07-100904 Lab ID # 741-00025-005	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1450 4) May-03-05	Soil Soil-Beige
DEM-S106-100904 Lab ID # 741-00025-006	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1625 4) May-03-05	Soil Soil-Beige
DEM-CS01-100904 Lab ID # 741-00025-007	<1% Actinolite	1)None Detected 2)100-100% Qtz, Fldsp, Calc, Other m.p. 3) Oct-09-04 1730 4) May-03-05	Soil Soil-Beige
DEM-S12-100904 Lab ID # 741-00025-008	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1536 4) May-03-05	Soil Soil-Beige
DEM-S10-100904 Lab ID # 741-00025-009	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1520 4) May-03-05	Soil Soil-Beige
DEM-S08-100904 Lab ID # 741-00025-010	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1500 4) May-03-05	Soil Soil-Beige

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



ASBESTOS TEM LABORATORIES, INC.  
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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: 2 of 4

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 40 Reg. Samples Analyzed: 40 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049487 Date Submitted: Apr-15-05 Date Reported: May-03-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		FIELD
		LAB
SVB-S08-100904 Lab ID # 741-00025-011	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1712 4)Apr-27-05 Soil-Beige
SVB-S02-100904 Lab ID # 741-00025-012	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1640 4) Apr-27-05 Soil-Brown
DEM-S11-100904 Lab ID # 741-00025-013	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1525 4) May-03-05 Soil-Beige
RHS-S04-100904 Lab ID # 741-00025-014	<1% Actinolite	1)None Detected 2)100-100% Qtz, GlassFrags, Calc 3) Oct-09-04 1824 4) May-03-05 Soil-Beige
RHS-S08-100904 Lab ID # 741-00025-015	<1% Actinolite	1)None Detected 2)100-100% Qtz, GlassFrags, Other m.p. 3) Oct-09-04 1850 4)Apr-27-05 Soil-Brown
DEM-S13-100904 Lab ID # 741-00025-016	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1540 4)Apr-27-05 Soil-Brown
RHS-S01-100904 Lab ID # 741-00025-017	<1% Actinolite	1)None Detected 2)100-100% Opq, Qtz, Calc, Other m.p. 3) Oct-09-04 1808 4)Apr-27-05 Soil-Brown
SVB-S04-100904 Lab ID # 741-00025-018	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1650 4)Apr-27-05 Soil-Brown
RHS-S03-100904 Lab ID # 741-00025-019	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1817 4)Apr-27-05 Soil-Beige
SVB-CS01-100904 Lab ID # 741-00025-020	<1% Actinolite	1)None Detected 2)100-100% Opq, Qtz, Calc, Other m.p. 3) Oct-09-04 1730 4)Apr-27-05 Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer R. Mc Bain

Analyst Steve S.

ASBESTOS TEM LABORATORIES, INC.  
www.asbestosstemlabs.com

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(510) 704-8930

**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: 3 of 4

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 40 Reg. Samples Analyzed: 40 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049487 Date Submitted: Apr-15-05 Date Reported: May-03-05	
SAMPLE ID	% ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
RHS-S05-100904 Lab ID # 741-00025-021	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-09-04 1830 4)Apr-27-05	Soil Soil-Grey
RHS-S06-100904 Lab ID # 741-00025-022	<1% Actinolite	1)None Detected 2) 3) Oct-09-04 1836 4) Apr-27-05	Soil Soil-Brown
RHS-S106-100904 Lab ID # 741-00025-023	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1425 4) Apr-27-05	Soil Soil-Brown
SVB-S07-100904 Lab ID # 741-00025-024	<1% Actinolite	1)None Detected 2)100-100% Qtz, GlassFrags, Other m.p. 3) Oct-09-04 1707 4) Apr-27-05	Soil Soil-Brown
RHS-CS01-100904 Lab ID # 741-00025-025	<1% Actinolite	1)None Detected 2)100-100% Qtz, GlassFrags, Other m.p. 3) Oct-09-04 1900 4) Apr-27-05	Soil Soil-Brown
SVB-S01-100904 Lab ID # 741-00025-026	<1% Actinolite	1)None Detected 2)100-100% Qtz; Calc, Fldsp, Other m.p. 3) Oct-09-04 1635 4) Apr-27-05	Soil Soil-Brown
SVB-S03-100904 Lab ID # 741-00025-027	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1645 4) Apr-27-05	Soil Soil-Brown
SVB-S05-100904 Lab ID # 741-00025-028	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1655 4) Apr-27-05	Soil Soil-Brown
SVB-S06-100904 Lab ID # 741-00025-029	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1700 4) Apr-27-05	Soil Soil-Brown
SVB-S106-100904 Lab ID # 741-00025-030	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1845 4) Apr-27-05	Soil Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer R. Mc. Bain

ASBESTOS TEM LABORATORIES, INC.  
www.asbestosstemlabs.com

Analyst Shawn Steg

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(510) 704-8930

**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

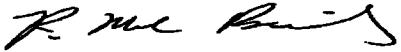
Analyzed by NIOSH 9002 Method

Page: 4 of 4

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 40 Reg. Samples Analyzed: 40 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049487 Date Submitted: Apr-15-05 Date Reported: May-03-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
RHS-S07-100904 Lab ID # 741-00025-031	<1% Actinolite	1)None Detected 2)100-100% Qtz, GlassFrags, Other m.p. 3)Oct-09-04 1845 4)Apr-27-05 Soil Soil-Grey
RHS-S02-100904 Lab ID # 741-00025-032	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-09-04 1812 4) Apr-27-05 Soil-Beige
JSG-S03-101004 Lab ID # 741-00025-033	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1723 4)Apr-27-05 Soil-Brown
JSG-S04-101004 Lab ID # 741-00025-034	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1727 4)Apr-27-05 Soil-Brown
JSG-S05-101004 Lab ID # 741-00025-035	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1730 4)Apr-27-05 Soil-Brown
JSG-S06-101004 Lab ID # 741-00025-036	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1734 4)Apr-27-05 Soil-Brown
JSG-S07-101004 Lab ID # 741-00025-037	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1739 4)Apr-27-05 Soil-Brown
JSG-S107-101004 Lab ID # 741-00025-038	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1741 4)Apr-27-05 Soil-Brown
JSG-S08-101004 Lab ID # 741-00025-039	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1742 4)Apr-27-05 Soil-Grey
JSG-CS01-101004 Lab ID # 741-00025-040	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1715 4)Apr-27-05 Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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EDH Investigation SOR

EPA Contract Work  
Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Site #: 0440 01CE

Contact Name: Charles LaGatta

Contact Phone: (856) 858-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab City-Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	DEM-S03-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	14:03	1	BAG
✓	DEM-S04-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	14:15	1	BAG
✓	DEM-S05-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	14:27	1	BAG
✓	SVB-S10-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:20	1	BAG
✓	DEM-S07-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	14:50	1	BAG
✓	DEM-S106-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	16:25	1	BAG
✓	DEM-CS01-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:30	1	BAG
✓	DEM-S12-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	15:36	1	BAG
✓	DEM-S10-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	15:20	1	BAG
NR	DEM-S08-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	15:00	1	BAG
✓	SVB-S08-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:12	1	BAG
✓	SVB-S02-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	16:40	1	BAG
✓	DEM-S11-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	15:25	1	BAG
✓	RHS-S04-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:24	1	BAG
✓	RHS-S08-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:50	1	BAG
✓	DEM-S13-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	15:40	1	BAG
✓	RHS-S01-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:08	1	BAG
✓	SVB-S04-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	16:50	1	BAG
✓	RHS-S03-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:17	1	BAG
✓	SVB-CS01-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:30	1	BAG

#### Comments

DEM-508-10044 Not Received (NR)

Refer to C-O-C Attachment A.

**SAMPLES TRANSFERRED FROM**

CHAM OF CUSTODY &

0440.01CP-0015

EDH Investigation SOIL

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Site #: 0440.01CP

Contact Name: Charles LaCerra

Contact Phone: (855) 858-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab Civic Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #	Analyses - <i>F</i> - <i>SOCU</i>	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	RHS-S05-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:30	1	BAG
✓	RHS-S08-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:35	1	BAG
✓	RHS-S105-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	14:25	1	BAG
✓	SVB-S07-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:07	1	BAG
✗	RHS-CS01-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	19:00	1	BAG
✓	SVB-S01-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	16:35	1	BAG
✓	SVB-S03-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	16:45	1	BAG
✓	SVB-S05-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	16:55	1	BAG
✓	SVB-S06-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	17:00	1	BAG
✓	SVB-S106-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:45	1	BAG
✓	RHS-S07-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:45	1	BAG
✓	RHS-S02-100904	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/9/2004	18:12	1	BAG
✓	JSG-S03-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:23	1	BAG
✓	JSG-S04-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:27	1	BAG
✓	JSG-S05-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:30	1	BAG
✓	JSG-S06-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:34	1	BAG
✓	JSG-S07-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:39	1	BAG
✓	JSG-S107-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:41	1	BAG
✓	JSG-S08-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:42	1	BAG
✗	JSG-CS01-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:15	1	BAG

Comments:	Refer to C-O-C Attachment A	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY # C440 016P-001E
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## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049487

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #:

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Apr-15-05  
TIME IN: 4:30 pmCLIENT NO: 741LOT NO: 00025

Total Samples:

40DATE /  
TIME DUE:JOB SITE: 0440.01CP

JOB NO:

Logged by: RYCONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENTDELIVERED BY: FedEx S

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAILhedwards@ene.comSee marketing screen for more info!!!

Invoice To:

LJohnson@ene.com

REVIEWED \_\_\_\_\_

E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00025-001	DEM-S03-100904	Soil
741-00025-002	DEM-S04-100904	Soil
741-00025-003	DEM-S05-100904	Soil
741-00025-004	SVB-S10-100904	Soil
741-00025-005	DEM-S07-100904	Soil
741-00025-006	DEM-S106-100904	Soil
741-00025-007	DEM-CS01-100904	Soil
741-00025-008	DEM-S12-100904	Soil
741-00025-009	DEM-S10-100904	Soil
741-00025-010	DEM-S08-100904	Soil
741-00025-011	SVB-S08-100904	Soil
741-00025-012	SVB-S02-100904	Soil
741-00025-013	DEM-S11-100904	Soil
741-00025-014	RHS-S04-100904	Soil
741-00025-015	RHS-S08-100904	Soil
741-00025-016	DEM-S13-100904	Soil
741-00025-017	RHS-S01-100904	Soil
741-00025-018	SVB-S04-100904	Soil
741-00025-019	RHS-S03-100904	Soil
741-00025-020	SVB-CS01-100904	Soil
741-00025-021	RHS-S05-100904	Soil
741-00025-022	RHS-S06-100904	Soil
741-00025-023	RHS-S106-100904	Soil
741-00025-024	SVB-S07-100904	Soil
741-00025-025	RHS-CS01-100904	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049487

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED: **PLM-STANDARD** URGGENCY: **6-10 DAYS** DATE / **Apr-15-05**  
 CLIENT NO: **741** LOT NO: **00025** Total Samples: **40** TIME IN: **4:30 pm**

JOB SITE: **0440.01CP** DATE /  
 JOB NO: Logged by: **ry** CONTACT: **Mr. Howard Edwards** TIME DUE: \_\_\_\_\_

SAMPLE CONDITIONS: **EXCELLENT** DELIVERED BY: **FedEx S**

SPECIAL INSTRUCTIONS

FAX **415-981-0801**  E-MAIL **hedwards@ene.com** **Invoice To:**  
**See marketing screen for more info!!!** **LJohnson@ene.com**

REVIEWED \_\_\_\_\_ E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00025-026	SVB-S01-100904	Soil
741-00025-027	SVB-S03-100904	Soil
741-00025-028	SVB-S05-100904	Soil
741-00025-029	SVB-S06-100904	Soil
741-00025-030	SVB-S106-100904	Soil
741-00025-031	RHS-S07-100904	Soil
741-00025-032	RHS-S02-100904	Soil
741-00025-033	JSG-S03-101004	Soil
741-00025-034	JSG-S04-101004	Soil
741-00025-035	JSG-S05-101004	Soil
741-00025-036	JSG-S06-101004	Soil
741-00025-037	JSG-S07-101004	Soil
741-00025-038	JSG-S107-101004	Soil
741-00025-039	JSG-S08-101004	Soil
741-00025-040	JSG-CS01-101004	Soil

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-001	<u>DEM-S03-10094</u>	Description: Soil										T=22C	
Color:Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes			Collection Date/Time: Oct-0004		/1403		Anal Date: May-03-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00025-002	<u>DEM-S04-10094</u>	Description: Soil											
Color:Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%		
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.										
Notes			Collection Date/Time: Oct-0004		/1415		Anal Date: Apr-27-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00025-003	<u>DEM-S05-10094</u>	Description: Soil											
Color:Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%		
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.										
Notes			Collection Date/Time: Oct-0004		/1427		Anal Date: Apr-27-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00025-003Q	<u>DEM-S05-10094</u>	Description: Soil											
Color:Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%		
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.										
Notes			Collection Date/Time: Oct-0004		/1427		Anal Date: Apr-27-05		Analyst: MB				
Sample Prep Method(s):			Ground				QC Date: 5-03-05						

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00025-004	<u>SB-S10-10094</u>	Description: Soil											
Color:Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery						MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes			Collection Date/Time: Oct-0004		/1720		Anal Date: May-03-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-005	<u>DEM-S07-10094</u> Description: <b>Soil</b>										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes			Collection Date/Time: Oct-0004 /1450	Anal Date: May-03-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-006	<u>DEM-S106-10094</u> Description: <b>Soil</b>										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes			Collection Date/Time: Oct-0004 /1625	Anal Date: May-03-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite

741-00025-006Q	<u>DEM-S106-10094</u> Description: <b>Soil</b>										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 9-9% Qtz, Calc, Fldsp, Other m.p.								
Notes			Collection Date/Time: Oct-0004 /1625	Anal Date: May-03-05 Analyst: MB							
Sample Prep Method(s):			Ground	QC Date: 5-03-05							
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00025-007	<u>DEM-CS01-10094</u> Description: <b>Soil</b>										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Fldsp, Calc, Other m.p.								
Notes			Collection Date/Time: Oct-0004 /1730	Anal Date: May-03-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-008	<u>DEM-S12-10094</u> Description: <b>Soil</b>										
Color: Beige	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%							
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes			Collection Date/Time: Oct-0004 /1536	Anal Date: May-03-05 Analyst: SF							
Sample Prep Method(s):			Ground	QC Date:							
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-009	<u>DEM-S10-10094</u> Description: <b>Soil</b>										
Color:Beige	Homogenity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-0004 /1520				Anal Date: May-03-05				Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

-009Q 28/06/05

741-00025-009	<u>DEM-S10-10094</u> Description: <b>Soil</b>										
Color:Beige	Homogenity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-0004 /1520				Anal Date: May-03-05				Analyst: MB		
Sample Prep Method(s):	Ground										
Method DS	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00025-010	<u>DEM-S08-10094</u> Description: <b>Soil</b>										
Color:Beige	Homogenity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-0004 /1500				Anal Date: May-03-05				Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-011	<u>SB-S08-10094</u> Description: <b>Soil</b>										
Color:Beige	Homogenity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-0004 /1712				Anal Date: Apr-27-05				Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00025-012	<u>SB-S02-10094</u> Description: <b>Soil</b>										
Color:Brown	Homogenity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-0004 /1640				Anal Date: Apr-27-05				Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-013	<u>DEM-S11-10094</u>	Description: Soil										
Color:Beige	Homogeneity:Good			Friability: Friable			Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected						Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.					
Notes	Collection Date/Time: Oct-0004						/1525			Anal Date: May-03-05	Analyst: SF	
Sample Prep Method(s):	Ground										QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref <u>M</u>	Sign +	ExtAn 12	% 0	% <u>&lt;1</u>	Fibers Type Actinolite
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741-00025-014	<u>RE-S04-10094</u>	Description: Soil										
Color:Beige	Homogeneity:Good			Friability: Friable			Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected						Non-fibrous% 100-100% Qtz, GlassFrags, Calc					
Notes	Collection Date/Time: Oct-0004						/1824			Anal Date: May-03-05	Analyst: SF	
Sample Prep Method(s):	Ground										QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref <u>M</u>	Sign +	ExtAn 12	% 0	% <u>&lt;1</u>	Fibers Type Actinolite
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741-00025-015	<u>RE-S08-10094</u>	Description: Soil										
Color:Brown	Homogeneity:Good			Friability: Friable			Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected						Non-fibrous% 100-100% Qtz, GlassFrags, Other m.p.					
Notes	Collection Date/Time: Oct-0004						/1850			Anal Date: Apr-27-05	Analyst: SF	
Sample Prep Method(s):	Ground										QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref <u>M</u>	Sign +	ExtAn 12	% 0	% <u>&lt;1</u>	Fibers Type Actinolite
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741-00025-015Q	<u>RE-S08-10094</u>	Description: Soil										
Color:Brown	Homogeneity:Good			Friability: Friable			Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected						Non-fibrous% 100-100% Qtz, GlassFrags, Other m.p.					
Notes	Collection Date/Time: Oct-0004						/1850			Anal Date: Apr-27-05	Analyst: MB	
Sample Prep Method(s):	Ground										QC Date: 5-03-05	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref <u>M</u>	Sign +	ExtAn 12	% 0	% <u>&lt;1</u>	Fibers Type Actinolite
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741-00025-016	<u>DEM-S13-10094</u>	Description: Soil										
Color:Brown	Homogeneity:Good			Friability: Friable			Texture: Powdery			MacroAsb%		
Total Asbestos% <1%	Other fibers% None Detected						Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.					
Notes	Collection Date/Time: Oct-0004						/1540			Anal Date: Apr-27-05	Analyst: SF	
Sample Prep Method(s):	Ground										QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref <u>M</u>	Sign +	ExtAn 12	% 0	% <u>&lt;1</u>	Fibers Type Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-017	<u>RB-S01-10094</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% OpgQtz, Calc, Other m.p.						
Notes	Collection Date/Time: Oct-0004				/1808		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-018	<u>SB-S04-10094</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-0004				/1650		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-019	<u>RB-S03-10094</u>	Description: Soil									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-0004				/1817		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-020	<u>SB-CS01-10094</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% OpgQtz, Calc, Other m.p.						
Notes	Collection Date/Time: Oct-0004				/1730		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

741-00025-021	<u>RB-S05-10094</u>	Description: Soil									
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous%		100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-0004				/1830		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										
Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-021Q	<u>RB-S05-10094</u>	Description: Soil										
Color: Grey	Homogeneity: Good	Friability: Friable	Texture: Powdery MacroAsb%									
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes	Collection Date/Time: Oct-0004 / 1830	Anal Date: Apr-27-05 Analyst: SF										
Sample Prep Method(s):	Ground	QC Date: 5-03-05										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

741-00025-022	<u>RB-S06-10094</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery MacroAsb%									
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous%										
Notes	Collection Date/Time: Oct-0004 / 1836	Anal Date: Apr-27-05 Analyst: SF										
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
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741-00025-023	<u>RB-S106-1009</u> 4	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery MacroAsb%									
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-0004 / 1425	Anal Date: Apr-27-05 Analyst: SF										
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
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741-00025-024	<u>SB-S07-10094</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery MacroAsb%									
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, GlassFrgs, Other m.p.										
Notes	Collection Date/Time: Oct-0004 / 1707	Anal Date: Apr-27-05 Analyst: SF										
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
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741-00025-025	<u>RB-CS01-1009</u> 4	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery MacroAsb%									
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, GlassFrgs, Other m.p.										
Notes	Collection Date/Time: Oct-0004 / 180	Anal Date: Apr-27-05 Analyst: SF										
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
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Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-026	<u>SVB-S01-100904</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-09-04	/1635	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-027	<u>SVB-S03-100904</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-09-04	/1645	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-028	<u>SVB-S05-100904</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-09-04	/1655	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-029	<u>SVB-S06-100904</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-09-04	/1700	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-029Q	<u>SVB-S06-100904</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes	Collection Date/Time:	/	Anal Date: Apr-27-05	Analyst: MB								
Sample Prep Method(s):	Ground	QC Date: 5-03-05										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

DS      Needles      Green      Grn/DrkG      1.672      1.652      M      +      12      0      <1      Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-030	<u>SB-S106-10094</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-0004		/1845		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00025-031	<u>RB-S07-10094</u>	Description: Soil									
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, GlassFrags, Other m.p.						
Notes			Collection Date/Time: Oct-0004		/1845		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00025-032	<u>RB-S02-10094</u>	Description: Soil									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-0004		/1812		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00025-033	<u>JSG-S03-101004</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-10-04		/1723		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00025-034	<u>JSG-S04-101004</u>	Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1727		Anal Date: Apr-27-05		Analyst: SF		
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-034Q	<u>JSG-S04-101004</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04	/1727	Anal Date: Apr-27-05	Analyst: MB								
Sample Prep Method(s):	Ground	QC Date: 5-03-05										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-035	<u>JSG-S05-101004</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04	/1730	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-036	<u>JSG-S06-101004</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04	/1734	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-037	<u>JSG-S07-101004</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04	/1739	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00025-038	<u>JSG-S107-101004</u>	Description: Soil										
Color: Brown	Homogeneity: Good	Friability: Friable	Texture: Powdery	MacroAsb%								
Total Asbestos% <1%	Other fibers% None Detected	Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.										
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04	/1741	Anal Date: Apr-27-05	Analyst: SF								
Sample Prep Method(s):	Ground	QC Date:										
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

Date: May/21/2005

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**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00025-039	<u>JSG-S08-101004</u> Description: Soil										
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-10-04 /1742								Anal Date: Apr-27-05	Analyst: SF	
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00025-040	<u>JSG-CS01-101004</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04 /1715								Anal Date: Apr-27-05	Analyst: SF	
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00025-040Q	<u>JSG-CS01-101004</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04 /1715								Anal Date: Apr-27-05	Analyst: MB	
Sample Prep Method(s):	Ground										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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Description:											
Color:	Homogeneity:		Friability:		Texture:						MacroAsb%
Total Asbestos%	Other fibers%				Non-fibrous%						
Notes	Collection Date/Time:								Anal Date:	Analyst:	
Sample Prep Method(s):											

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
									Talc		Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogeneity:		Friability:		Texture:						MacroAsb%
Total Asbestos%	Other fibers%				Non-fibrous%						
Notes	Collection Date/Time:								Anal Date:	Analyst:	
Sample Prep Method(s):											

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
									Talc		Talc
											Cellulose
											Talc
											Cellulose

Date: May/21/2005

**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

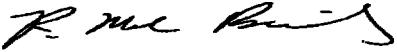
Analyzed by NIOSH 9002 Method

Page: 1 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 52 Reg. Samples Analyzed: 52 Split Layers Analyzed: 0	Report No. 049488 Date Submitted: Apr-15-05 Date Reported: May-03-05
Job Site / No. 0440.01CP		
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b> <b>FIELD LAB</b>
JSG-S02-101004 Lab ID # 741-00026-001	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1720 4) Apr-28-05 Soil Soil-Brown
JSB-S05-101004 Lab ID # 741-00026-002	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 4) Apr-28-05 Soil Soil-Brown
JSG-S09-101004 Lab ID # 741-00026-003	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1747 4) Apr-28-05 Soil Soil-Brown
JSS-S01-101004 Lab ID # 741-00026-004	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1600 4) Apr-28-05 Soil Soil-Brown
JSG-S01-101004 Lab ID # 741-00026-005	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1715 4) Apr-28-05 Soil Soil-Brown
JSB-S07-101004 Lab ID # 741-00026-006	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1435 4) Apr-28-05 Soil Soil-Brown
JSB-S01-101004 Lab ID # 741-00026-007	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1253 4) Apr-28-05 Soil Soil-Brown
JSB-S101-101004 Lab ID # 741-00026-008	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1610 4) Apr-28-05 Soil Soil-Brown
JSB-S02-101004 Lab ID # 741-00026-009	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1400 4) May-03-05 Soil Soil-Brown
JSB-S03-101004 Lab ID # 741-00026-010	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1015 4) May-03-05 Soil Soil-Beige

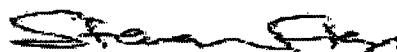
Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

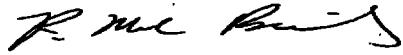
Analyzed by NIOSH 9002 Method

Page: 2 of 6

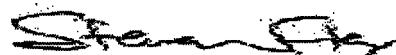
Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 52 Reg. Samples Analyzed: 52 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049488 Date Submitted: Apr-15-05 Date Reported: May-03-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
JSB-S04-101004 Lab ID # 741-00026-011	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-10-04 1100 4)May-03-05 Soil Soil-Brown
JSB-CS01-101004 Lab ID # 741-00026-012	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1704 4) May-03-05 Soil Soil-Brown
JSS-S02-101004 Lab ID # 741-00026-013	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1610 4)Apr-28-05 Soil Soil-Beige
JSS-S03-101004 Lab ID # 741-00026-014	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1616 4)Apr-28-05 Soil Soil-Grey
JSS-S04-101004 Lab ID # 741-00026-015	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1628 4)Apr-28-05 Soil Soil-Beige
JSS-S05-101004 Lab ID # 741-00026-016	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1635 4)Apr-28-05 Soil Soil-Grey
JSS-S06-101004 Lab ID # 741-00026-017	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1645 4)May-03-05 Soil Soil-Brown
JSS-S07-101004 Lab ID # 741-00026-018	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1655 4)Apr-28-05 Soil Soil-Beige
JSS-CS01-101004 Lab ID # 741-00026-019	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1600 4)Apr-28-05 Soil Soil-Beige
JSB-S06-101004 Lab ID # 741-00026-020	<1% <b>Actinolite</b>	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-10-04 1500 4)Apr-28-05 Soil Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

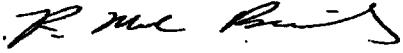
Analyzed by NIOSH 9002 Method

Page: 3 of 6

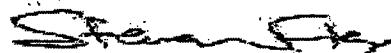
Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 52 Reg. Samples Analyzed: 52 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049488 Date Submitted: Apr-15-05 Date Reported: May-03-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b> <b>LAB</b>
DPA-SA3-101104 Lab ID # 741-00026-021	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3)Oct-11-04 1045 4)May-03-05 Soil Soil-Brown
DPA-S01-101104 Lab ID # 741-00026-022	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-11-04 1055 4) May-03-05 Soil Soil-Brown
DPA-SA1-101104 Lab ID # 741-00026-023	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-11-04 1028 4) May-03-05 Soil Soil-Brown
DPA-CS01-101104 Lab ID # 741-00026-024	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-11-04 1135 4) May-03-05 Soil Soil-Brown
DPA-SA2-101104 Lab ID # 741-00026-025	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-11-04 1035 4) Apr-28-05 Soil Soil-Beige
DPA-S1A3-101104 Lab ID # 741-00026-026	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-11-04 1046 4) May-03-05 Soil Soil-Brown
LAB-BL01-101104 Lab ID # 741-00026-027	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3) Oct-15-04 4)Apr-28-05 Soil Soil-Grey
LAB-BL07-101104 Lab ID # 741-00026-028	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3) Oct-15-04 4)Apr-28-05 Soil Soil-Grey
LAB-DUP01-101104 Lab ID # 741-00026-029	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-15-04 4)Apr-28-05 Soil Soil-Brown
LAB-DUP02-101104 Lab ID # 741-00026-030	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-16-04 4)Apr-28-05 Soil Soil-Brown

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

Analyzed by NIOSH 9002 Method

Page: 4 of 6

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 52 Reg. Samples Analyzed: 52 Split Layers Analyzed: 0	Report No. 049488 Date Submitted: Apr-15-05 Date Reported: May-03-05
	Job Site / No. 0440.01CP	
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
LAB-BL03-101104 Lab ID # 741-00026-031	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-16-04      4) May-03-05 Soil
LAB-BL02-1011-4 Lab ID # 741-00026-032	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-16-04      4) May-03-05 Soil-Grey
LAB-BL08-101104 Lab ID # 741-00026-033	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-17-04      4) May-03-05 Soil
LAB-BL04-101104 Lab ID # 741-00026-034	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-17-04      4) Apr-28-05 Soil-Grey
LAB-DUP03-101104 Lab ID # 741-00026-035	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-17-04      4) Apr-28-05 Soil
LAB-DUP04-101104 Lab ID # 741-00026-036	<1% Actinolite	1) None Detected 2) 100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-17-04      4) May-03-05 Soil
LAB-BL09-101104 Lab ID # 741-00026-037	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-17-04      4) Apr-28-05 Soil
LAB-DUP07-101104 Lab ID # 741-00026-038	1-5% Actinolite	1) None Detected 2) 95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-18-04      4) Apr-28-05 Soil
LAB-BL06-101104 Lab ID # 741-00026-039	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-18-04      4) May-03-05 Soil
LAB-BL11-101104 Lab ID # 741-00026-040	None Detected	1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p. 3) Oct-18-04      4) May-03-05 Soil
Soil-Grey		

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer R. McRae

Analyst Shawn S.

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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

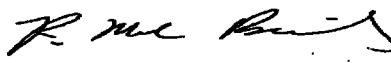
Analyzed by NIOSH 9002 Method

Page: 5 of 6

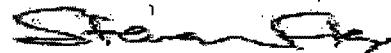
Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 52 Reg. Samples Analyzed: 52 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. 049488 Date Submitted: Apr-15-05 Date Reported: May-03-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>% ASBESTOS TYPE</b>	<b>DESCRIPTION</b>
		<b>FIELD</b>
		<b>LAB</b>
LAB-BL10-101104 Lab ID # 741-00026-041	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3)Oct-18-04 4)May-03-05 Soil-Grey
LAB-DUP05-101104 Lab ID # 741-00026-042	<1% Actinolite	1)None Detected 2)100-100% Opq, Calc, Qtz 3) Oct-18-04 4) Apr-28-05 Soil-Brown
LAB-DUP06-101104 Lab ID # 741-00026-043	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-19-04 4) May-03-05 Soil-Brown
LAB-DUP08-101104 Lab ID # 741-00026-044	<1% Actinolite	1)None Detected 2)100-100% Opq, Calc, Qtz 3) Oct-19-04 4) May-03-05 Soil-Brown
LAB-BL05-101104 Lab ID # 741-00026-045	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3) Oct-20-04 4) May-03-05 Soil-Grey
LAB-DUP10-101104 Lab ID # 741-00026-046	1-5% Actinolite	1)None Detected 2)95-99% Qtz, Calc, Fldsp, Other m.p. 3) Oct-20-04 4) Apr-28-05 Soil-Brown
LAB-DUP09-101104 Lab ID # 741-00026-047	<1% Actinolite	1)None Detected 2)100-100% Qtz, Calc, Fldsp, Other m.p. 3) Oct-20-04 4) Apr-28-05 Soil-Brown
LAB-BL15-101104 Lab ID # 741-00026-048	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3) Oct-21-04 4) May-03-05 Soil-Grey
LAB-BL12-101104 Lab ID # 741-00026-049	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3) Oct-22-04 4) May-03-05 Soil-Grey
LAB-BL13-101104 Lab ID # 741-00026-050	None Detected	1)None Detected 2)99-100% Qtz, Fldsp, Other m.p. 3) Oct-22-04 4) May-03-05 Soil-Grey

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



Analyst



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**POLARIZED LIGHT MICROSCOPY**  
**ANALYTICAL REPORT**

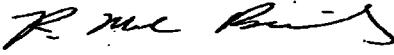
Analyzed by NIOSH 9002 Method

Page: **6 of 6**

Contact: Mr. Howard Edwards Address: Ecology and Environment, Inc. 350 Sansome Street, Suite 300 San Francisco, CA 94104	Samples Indicated: 52 Reg. Samples Analyzed: 52 Split Layers Analyzed: 0 Job Site / No. 0440.01CP	Report No. <b>049488</b> Date Submitted: Apr-15-05 Date Reported: May-03-05
<b>OTHER DATA</b>		
<b>SAMPLE ID</b>	<b>ASBESTOS % TYPE</b>	<b>DESCRIPTION</b>
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Lab ID # 741-00026-051		1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p.
		3) Oct-22-04      4) Apr-28-05
LAB-BL16-101104	None Detected	Soil
Lab ID # 741-00026-052		1) None Detected 2) 99-100% Qtz, Fldsp, Other m.p.
		3) Oct-23-04      4) Apr-28-05
Lab ID #		1) 2)
Lab ID #		3)      4)
Lab ID #		1) 2)
Lab ID #		3)      4)
Lab ID #		1) 2)
Lab ID #		3)      4)
Lab ID #		1) 2)
Lab ID #		3)      4)
Lab ID #		1) 2)
Lab ID #		3)      4)
Lab ID #		1) 2)
Lab ID #		3)      4)
Lab ID #		1) 2)
Lab ID #		3)      4)

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer



ASBESTOS TEM LABORATORIES, INC.  
www.asbestostemlabs.com

Analyst



630 Bancroft Way, Berkeley CA 94710  
With Offices in Reno, NV (775) 359-3377

(510) 704-8930

EDH Investigation SOIL

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

**Site #: 0440.01CP**  
**Contact Name: Charles LaCerra**  
**Contact Phone: (858) 858-4800**

No: 0440.01CP-0021  
Lab: EMSL Analytical  
Lab\_City: Westmont  
Lab\_Phone: (856) 858-4800

Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Priority
✓	JSG-S02-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:20	1	BAG
✓	JSB-S05-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	10:38	1	BAG
✓	JSG-S09-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:47	1	BAG
✓	JSS-S01-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:00	1	BAG
✓	JSG-S01-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:15	1	BAG
✓	JSB-S07-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	14:35	1	BAG
✓	JSB-S01-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	12:53	1	BAG
✓	JSB-S101-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:10	1	BAG
✓	JSB-S02-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	14:00	1	BAG
✓	JSB-S03-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	10:15	1	BAG
✓	JSB-S04-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	11:00	1	BAG
✓	JSB-CS01-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	17:04	1	BAG
✓	JSS-S02-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:10	1	BAG
✓	JSS-S03-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:16	1	BAG
✓	JSS-S04-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:28	1	BAG
✓	JSS-S05-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:35	1	BAG
✓	JSS-S06-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:45	1	BAG
✓	JSS-S07-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	16:55	1	BAG
✗	JSS-CS01-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	18:00	1	BAG
✓	JSB-S06-101004	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/10/2004	15:00	1	BAG

**Comments:**

\*Refer to C-O-C Attachment A

**SAMPLES TRANSFERRED FROM**

CHAIN OF CUSTODY

0440.01 CP- C&K

EDH Investigation SOR

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Site #: 0440 01GP

Contact Name: Charles LaCerra

Contact Phone: (856) 858-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab City: Westmont

Lab Phone: (856) 858-4800

Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Priority
	DPA-SA3-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/11/2004	10:45		1 BAG
	DPA-S01-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/11/2004	10:55		1 BAG
	DPA-SA1-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/11/2004	10:28		1 BAG
	DPA-CS01-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/11/2004	11:35		1 BAG
	DPA-SA2-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/11/2004	10:35		1 BAG
	DPA-S1A3-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/11/2004	10:46		1 BAG
	LAB-BL01-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/15/2004			1 BAG
	LAB-BL07-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/15/2004			1 BAG
	LAB-DUP01-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/15/2004			1 BAG
	LAB-DUP02-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/15/2004			1 BAG
	LAB-BL03-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/16/2004			1 BAG
	LAB-BL02-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/16/2004			1 BAG
	LAB-BL08-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/16/2004			1 BAG
	LAB-BL04-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/17/2004			1 BAG
	LAB-DUP03-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/17/2004			1 BAG
	LAB-DUP04-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/17/2004			1 BAG
	LAB-BL09-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/17/2004			1 BAG
	LAB-DUP07-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/18/2004			1 BAG
	LAB-BL08-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/18/2004			1 BAG
	LAB-BL11-101104	NIOSH 9002 and/or EPA 600-R93-116	Soil	10/18/2004			1 BAG

### **Comments:**

Refers to C-O-C Attachment + A

**SAMPLES TRANSFERRED FROM**

CHAIN OF CUSTODY

C440.01CP -0015

BOH Investigation SOIL

## EPA Contract Work: Ecology and Environment

**CHAIN OF CUSTODY RECORD**

Ska #: 0440,01CP

**Contact Name: Charles LaCerra**

Contact Phone: (856) 858-4800

No: 0440.01CP-0021

Lab: EMSL Analytical

Lab City Westmore

**Lab Phone: (856) 859-4800**

**Comments:** Refer to CG-4 attachment A

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049488

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED: **PLM-STANDARD** URGENCY: **3-5 DAYS** DATE / **Apr-15-05**  
 CLIENT NO: **741** LOT NO: **00026** Total Samples: **52** TIME IN: **4:30 pm**

JOB SITE: \_\_\_\_\_  
 DATE / \_\_\_\_\_  
 TIME DUE: \_\_\_\_\_

JOB NO: **0440.01CP** Logged by: **ry** CONTACT: **Mr. Howard Edwards**

SAMPLE CONDITIONS: **EXCELLENT** DELIVERED BY: **FedEx S**

SPECIAL INSTRUCTIONS

FAX **415-981-0801**  E-MAIL **hedwards@ene.com** **See marketing screen for more info!!** Invoice To: **LJohnson@ene.com**

REVIEWED \_\_\_\_\_ E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00026-001	JSG-S02-101004	Soil
741-00026-002	JSB-S05-101004	Soil
741-00026-003	JSG-S09-101004	Soil
741-00026-004	JSS-S01-101004	Soil
741-00026-005	JSG-S01-101004	Soil
741-00026-006	JSB-S07-101004	Soil
741-00026-007	JSB-S01-101004	Soil
741-00026-008	JSB-S101-101004	Soil
741-00026-009	JSB-S02-101004	Soil
741-00026-010	JSB-S03-101004	Soil
741-00026-011	JSB-S04-101004	Soil
741-00026-012	JSB-CS01-101004	Soil
741-00026-013	JSS-S02-101004	Soil
741-00026-014	JSS-S03-101004	Soil
741-00026-015	JSS-S04-101004	Soil
741-00026-016	JSS-S05-101004	Soil
741-00026-017	JSS-S06-101004	Soil
741-00026-018	JSS-S07-101004	Soil
741-00026-019	JSS-CS01-101004	Soil
741-00026-020	JSB-S06-101004	Soil
741-00026-021	DPA-SA3-101104	Soil
741-00026-022	DPA-S01-101104	Soil
741-00026-023	DPA-SA1-101104	Soil
741-00026-024	DPA-CS01-101104	Soil
741-00026-025	DPA-SA2-101104	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049488

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED: **PLM-STANDARD** URGENCY: **3-5 DAYS** DATE / **Apr-15-05**  
 CLIENT NO: **741** LOT NO: **00026** Total Samples: **52** TIME IN: **4:30 pm**

JOB SITE: \_\_\_\_\_ DATE / \_\_\_\_\_  
 JOB NO: **0440.01CP** Logged by: **ry** CONTACT: **Mr. Howard Edwards**  
 SAMPLE CONDITIONS: **EXCELLENT** DELIVERED BY: **FedEx S**

## SPECIAL INSTRUCTIONS

FAX **415-981-0801**  E-MAIL **hedwards@ene.com** Invoice To:  
**See marketing screen for more info!!!** **LJohnson@ene.com**

REVIEWED \_\_\_\_\_ E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00026-026	DPA-S1A3-101104	Soil
741-00026-027	LAB-BL01-101104	Soil
741-00026-028	LAB-BL07-101104	Soil
741-00026-029	LAB-DUP01-101104	Soil
741-00026-030	LAB-DUP02-101104	Soil
741-00026-031	LAB-BL03-101104	Soil
741-00026-032	LAB-BL02-1011-4	Soil
741-00026-033	LAB-BL08-101104	Soil
741-00026-034	LAB-BL04-101104	Soil
741-00026-035	LAB-DUP03-101104	Soil
741-00026-036	LAB-DUP04-101104	Soil
741-00026-037	LAB-BL09-101104	Soil
741-00026-038	LAB-DUP07-101104	Soil
741-00026-039	LAB-BL06-101104	Soil
741-00026-040	LAB-BL11-101104	Soil
741-00026-041	LAB-BL10-101104	Soil
741-00026-042	LAB-DUP05-101104	Soil
741-00026-043	LAB-DUP06-101104	Soil
741-00026-044	LAB-DUP08-101104	Soil
741-00026-045	LAB-BL05-101104	Soil
741-00026-046	LAB-DUP10-101104	Soil
741-00026-047	LAB-DUP09-101104	Soil
741-00026-048	LAB-BL15-101104	Soil
741-00026-049	LAB-BL12-101104	Soil
741-00026-050	LAB-BL13-101104	Soil

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 049488

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: \_\_\_\_\_

ANALYSIS REQUESTED: PLM-STANDARD URGENCY: 3-5 DAYS DATE / Apr-15-05  
CLIENT NO: 741 LOT NO: 00026 Total Samples: 52 TIME IN: 4:30 pm

JOB SITE:

DATE /  
TIME DUE: \_\_\_\_\_JOB NO: 0440.01CP Logged by: ry CONTACT: Mr. Howard EdwardsSAMPLE CONDITIONS: EXCELLENT DELIVERED BY: FedEx S

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAIL hedwards@ene.com  
See marketing screen for more info!!!

Invoice To:

LJohnson@ene.com

REVIEWED \_\_\_\_\_ E-MAILED \_\_\_\_\_

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00026-051	LAB-BL14-101104	Soil
741-00026-052	LAB-BL16-101104	Soil

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-001	<u>JSG-S02-101004</u> Description: Soil												T=21C
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes			Collection Date/Time: Oct-10-04		/1720		Anal Date: Apr-28-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite		

741-00026-002	<u>JSB-S05-101004</u> Description: Soil												T=21C
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/		Anal Date: Apr-28-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00026-003	<u>JSG-S09101004</u> Description: Soil												T=21C
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1747		Anal Date: Apr-28-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00026-004	<u>JSS-S01-101004</u> Description: Soil												T=21C
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1600		Anal Date: Apr-28-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

741-00026-005	<u>JSG-S01-101004</u> Description: Soil												T=21C
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1715		Anal Date: Apr-28-05		Analyst: SF				
Sample Prep Method(s):			Ground				QC Date:						
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type		

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-006	<u>JSB-S07-101004</u> Description: Soil							T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1435		Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):			Ground				QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-007	<u>JSB-S01-101004</u> Description: Soil							T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1253		Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):			Ground				QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-008	<u>JSB-S101-101004</u> Description: Soil							T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes Fib.Op.Prop. Same as in Previous Sp.			Collection Date/Time: Oct-10-04		/1610		Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):			Ground				QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-009	<u>JSB-S02-101004</u> Description: Soil							T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-10-04		/1400		Anal Date: May-03-05		Analyst: SF		
Sample Prep Method(s):			Ground				QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

-009Q	8/3/05							T=21C			
741-00026-009	<u>JSB-S02-101004</u> Description: Soil										
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes			Collection Date/Time: Oct-10-04		/1400		Anal Date: May-03-05		Analyst: MB		
Sample Prep Method(s):			Ground				QC Date: 5-03-05				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-010	<u>JSB-S03-101004</u> Description: Soil										T=21C	
Color:Beige	Homogeneity:Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes			Collection Date/Time: Oct-10-04		/1015		Anal Date: May-03-05				Analyst: SF	
Sample Prep Method(s):			Ground								QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-011	<u>JSB-S04-101004</u> Description: Soil										T=21C	
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes			Collection Date/Time: Oct-10-04		/1100		Anal Date: May-03-05				Analyst: SF	
Sample Prep Method(s):			Ground								QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-012	<u>JSB-CS01-101004</u> Description: Soil										T=21C	
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes			Collection Date/Time: Oct-10-04		/1704		Anal Date: May-03-05				Analyst: SF	
Sample Prep Method(s):			Ground								QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-013	<u>JSS-S02-101004</u> Description: Soil										T=21C	
Color:Beige	Homogeneity:Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes			Collection Date/Time: Oct-10-04		/1610		Anal Date: Apr-28-05				Analyst: SF	
Sample Prep Method(s):			Ground								QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-014	<u>JSS-S03-101004</u> Description: Soil										T=21C	
Color:Grey	Homogeneity:Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes			Collection Date/Time: Oct-10-04		/1616		Anal Date: Apr-28-05				Analyst: SF	
Sample Prep Method(s):			Ground								QC Date:	

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-014Q	<u>JSS-S03-101004</u> Description: Soil											
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.									
Notes			Collection Date/Time:		/		Anal Date: Apr-28-05		Analyst: MB			
Sample Prep Method(s):			Ground				QC Date: 5-03-05					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	<u>Needles</u>	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
DS	<u>Needles</u>	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-015	<u>JSS-S04-101004</u> Description: Soil		T=21C									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-10-04		/ 1628		Anal Date: Apr-28-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	<u>Needles</u>	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-016	<u>JSS-S05-101004</u> Description: Soil		T=21C									
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-10-04		/ 1635		Anal Date: Apr-28-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	<u>Needles</u>	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-017	<u>JSS-S06-101004</u> Description: Soil		T=21C									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-10-04		/ 1645		Anal Date: May-03-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	<u>Needles</u>	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-018	<u>JSS-S07-101004</u> Description: Soil		T=21C									
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%					
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-10-04		/ 1655		Anal Date: Apr-28-05		Analyst: SF			
Sample Prep Method(s):			Ground				QC Date:					

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	<u>Needles</u>	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-019	<u>JSS-CS01-101004</u> Description: Soil										T=21C
Color:Beige	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-10-04 /1600								Anal Date: Apr-28-05	Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-020	<u>JSB-S06-101004</u> Description: Soil										T=21C
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes Fib.Op.Prop. Same as in Previous Sp.	Collection Date/Time: Oct-10-04 /1500								Anal Date: Apr-28-05	Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-021	<u>DPA-SA3-101104</u> Description: Soil										T=21C
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-11-04 /1045								Anal Date: May-03-05	Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-021Q	<u>DPA-SA3-101104</u> Description: Soil										T=21C
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-11-04 /1045								Anal Date: May-03-05	Analyst: MB	
Sample Prep Method(s):	Ground								QC Date: 5-03-05		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	≤1	Actinolite

741-00026-022	<u>DPA-S01-101104</u> Description: Soil										T=21C
Color:Brown	Homogeneity:Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-11-04 /1055								Anal Date: May-03-05	Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:		

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-023	<u>DPA-SA1-101104</u> Description: Soil										T=21C	
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-11-04 /1028								Anal Date: May-03-05	Analyst: SF
Sample Prep Method(s):			Ground								QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-024	<u>DPA-CS01-101104</u> Description: Soil										T=21C	
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-11-04 /1135								Anal Date: May-03-05	Analyst: SF
Sample Prep Method(s):			Ground								QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-025	<u>DPA-SA2-101104</u> Description: Soil										T=21C	
Color: Beige	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-11-04 /1035								Anal Date: Apr-28-05	Analyst: SF
Sample Prep Method(s):			Ground								QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-026	<u>DPA-S1A3-101104</u> Description: Soil										T=21C	
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.									
Notes			Collection Date/Time: Oct-11-04 /1046								Anal Date: May-03-05	Analyst: SF
Sample Prep Method(s):			Ground								QC Date:	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-026Q	<u>DPA-S1A3-101104</u> Description: Soil											
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.									
Notes			Collection Date/Time: /								Anal Date: May-03-05	Analyst: MB
Sample Prep Method(s):											QC Date: 5-03-05	

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-027	<u>LAB-BL01-101104</u> Description: <b>Soil</b>								T=21C			
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% ND	Other fibers% None Detected				Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.							
Notes	Collection Date/Time: Oct-15-04 /								Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

741-00026-028	<u>LAB-BL07-101104</u> Description: <b>Soil</b>								T=21C			
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% ND	Other fibers% None Detected				Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.							
Notes	Collection Date/Time: Oct-15-04 /								Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type

741-00026-029	<u>LAB-DUP01-10111</u> Description: <b>Soil</b>								T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes	Collection Date/Time: Oct-15-04 /								Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite	

741-00026-030	<u>LAB-DUP02-10111</u> Description: <b>Soil</b>								T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.							
Notes	Collection Date/Time: Oct-16-04 /								Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):	Ground								QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite	

741-00026-030Q	<u>LAB-DUP02-10111</u> Description: <b>Soil</b>								T=21C			
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery				MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Other m.p.							
Notes	Collection Date/Time: /								Anal Date: Apr-28-05		Analyst: MB	
Sample Prep Method(s):	Ground								QC Date: 5-03-05			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers	Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite	

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-031	<u>LAB-BL03-101104</u> Description: Soil							T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery			MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-16-04 /							Anal Date: May-03-05	Analyst: SF		
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-032	<u>LAB-BL02-1011-4</u> Description: Soil							T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery			MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-16-04 /							Anal Date: May-03-05	Analyst: SF		
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-033	<u>LAB-BL08-101104</u> Description: Soil							T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery			MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-17-04 /							Anal Date: May-03-05	Analyst: SF		
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-034	<u>LAB-BL04-101104</u> Description: Soil							T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery			MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-17-04 /							Anal Date: Apr-28-05	Analyst: SF		
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-035	<u>LAB-DUP03-10111</u> Description: Soil							T=21C			
Color:Brown	Homogeneity: Good		Friability: Friable	Texture: Powdery			MacroAsb%				
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-17-04 /							Anal Date: Apr-28-05	Analyst: SF		
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-035Q	<u>LAB-DUP03-1011</u> Description: Soil									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.							
Notes			Collection Date/Time:		/		Anal Date: Apr-28-05		Analyst: MB	
Sample Prep Method(s):			Ground				QC Date: 4-28-05			

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-036	<u>LAB-DUP04-1011</u> Description: Soil T=21C									
Color: Orange	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Qtz, Calc, Flsdp, Other m.p.							
Notes			Collection Date/Time: Oct-17-04		/		Anal Date: May-03-05		Analyst: SF	
Sample Prep Method(s):			Ground				QC Date:			

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-037	<u>LAB-BL09-101104</u> Description: Soil T=21C									
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Flsdp, Other m.p.							
Notes			Collection Date/Time: Oct-17-04		/		Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):			Ground				QC Date:			

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
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741-00026-037Q	<u>LAB-BL09-101104</u> Description: Soil									
Color: Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.							
Notes			Collection Date/Time:		/		Anal Date: Apr-28-05		Analyst: MB	
Sample Prep Method(s):			Ground				QC Date: 5-03-05			

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 0	% ≤1	Fibers Type Actinolite
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741-00026-038	<u>LAB-DUP07-1011</u> Description: Soil T=21C									
Color: Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% 1-5%	Other fibers% None Detected		Non-fibrous% 95-99% Qtz, Calc, Flsdp, Other m.p.							
Notes			Collection Date/Time: Oct-18-04		/		Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):			Ground				QC Date:			

Method DS	Morphology Needles	Color Green	Pleoch Grn/DrkG	RI Par 1.672	RI Prp 1.652	Biref M	Sign +	ExtAn 12	% 1	% 5	Fibers Type Actinolite
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**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-039	<u>LAB-BL06-101104</u> Description: Soil							T=21C			
Color:Grey	Homogenity: Good		Friability: Friable		Texture: Powdery			MacroAsb%			
Total Asbestos% ND	Other fibers% None Detected				Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-18-04 /							Anal Date: May-03-05		Analyst: SF	
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-040	<u>LAB-BL11-101104</u> Description: Soil							T=21C			
Color:Grey	Homogenity: Good		Friability: Friable		Texture: Powdery			MacroAsb%			
Total Asbestos% ND	Other fibers% None Detected				Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-18-04 /							Anal Date: May-03-05		Analyst: SF	
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-041	<u>LAB-BL10-101104</u> Description: Soil							T=21C			
Color:Grey	Homogenity: Good		Friability: Friable		Texture: Powdery			MacroAsb%			
Total Asbestos% ND	Other fibers% None Detected				Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-18-04 /							Anal Date: May-03-05		Analyst: SF	
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-042	<u>LAB-DUP05-10111</u> Description: Soil							T=21C			
Color:Brown	Homogenity: Good		Friability: Friable		Texture: Powdery			MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Opg, Calc, Qtz						
Notes	Collection Date/Time: Oct-18-04 /							Anal Date: Apr-28-05		Analyst: SF	
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-043	<u>LAB-DUP06-10111</u> Description: Soil							T=21C			
Color:Brown	Homogenity: Good		Friability: Friable		Texture: Powdery			MacroAsb%			
Total Asbestos% <1%	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Fldsp, Other m.p.						
Notes	Collection Date/Time: Oct-19-04 /							Anal Date: May-03-05		Analyst: SF	
Sample Prep Method(s):	Ground							QC Date:			
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-043Q	<u>LAB-DUP06-1011</u> Description: Soil									
Color:Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%			
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Other m.p.					
Notes	Collection Date/Time:					/	Anal Date: Apr-28-05		Analyst: MB	
Sample Prep Method(s):	QC Date: 4-28-05									

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00026-044	<u>LAB-DUP08-1011</u> Description: Soil										T=21C
Color:Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Opx, Calc, Qtz						
Notes	Collection Date/Time: Oct-19-04					/	Anal Date: May-03-05		Analyst: SF		
Sample Prep Method(s):	QC Date:										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

741-00026-045	<u>LAB-BL05-101104</u> Description: Soil										T=21C
Color:Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>ND</u>	Other fibers% None Detected				Non-fibrous% 99-100% Qtz, Flsps, Other m.p.						
Notes	Collection Date/Time: Oct-20-04					/	Anal Date: May-03-05		Analyst: SF		
Sample Prep Method(s):	QC Date:										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
--------	------------	-------	--------	--------	--------	-------	------	-------	---	---	-------------

741-00026-046	<u>LAB-DUP10-1011</u> Description: Soil										T=21C
Color:Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>1-5%</u>	Other fibers% None Detected				Non-fibrous% 95-99% Qtz, Calc, Flsps, Other m.p.						
Notes	Collection Date/Time: Oct-20-04					/	Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):	QC Date:										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	1	5	Actinolite

741-00026-047	<u>LAB-DUP09-1011</u> Description: Soil										T=21C
Color:Brown	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% <u>&lt;1%</u>	Other fibers% None Detected				Non-fibrous% 100-100% Qtz, Calc, Flsps, Other m.p.						
Notes	Collection Date/Time: Oct-20-04					/	Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):	QC Date:										

Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
DS	Needles	Green	Grn/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-048	<u>LAB-BL15-101104</u> Description: Soil								T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery		MacroAsb%						
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.									
Notes	Collection Date/Time: Oct-21-04				/		Anal Date: May-03-05		Analyst: SF			
Sample Prep Method(s):	Ground						QC Date:					
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00026-049	<u>LAB-BL12-101104</u> Description: Soil								T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery		MacroAsb%						
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.									
Notes	Collection Date/Time: Oct-22-04				/		Anal Date: May-03-05		Analyst: SF			
Sample Prep Method(s):	Ground						QC Date:					
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00026-049Q	<u>LAB-BL12-101104</u> Description: Soil								T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery		MacroAsb%						
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.									
Notes	Collection Date/Time: Oct-22-04				/		Anal Date: May-03-05		Analyst: MB			
Sample Prep Method(s):	Ground						QC Date: 5-03-05					
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00026-050	<u>LAB-BL13-101104</u> Description: Soil								T=21C			
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery		MacroAsb%						
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.									
Notes	Collection Date/Time: Oct-22-04				/		Anal Date: May-03-05		Analyst: SF			
Sample Prep Method(s):	Ground						QC Date:					
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

741-00026-050Q	<u>LAB-BL13-101104</u> Description: Soil											
Color:Grey	Homogeneity: Good		Friability: Friable	Texture: Powdery		MacroAsb%						
Total Asbestos% <1%	Other fibers% None Detected		Non-fibrous% 100-100% Other m.p.									
Notes	Collection Date/Time:				/		Anal Date: Apr-28-05		Analyst: MB			
Sample Prep Method(s):							QC Date: 5-03-05					
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type	

DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite
DS	Needles	Green	Gm/DrkG	1.672	1.652	M	+	12	0	<1	Actinolite

Date: May/21/2005

**ASBESTOS TEM LABORATORIES, INC.**  
**POLARIZED LIGHT MICROSCOPY DATA SHEET**

741-00026-051	<u>LAB-BL14-101104</u> Description: Soil						T=21C				
Color:Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-22-04 /						Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):	Ground						QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

741-00026-052	<u>LAB-BL16-101104</u> Description: Soil						T=21C				
Color:Grey	Homogeneity: Good		Friability: Friable		Texture: Powdery		MacroAsb%				
Total Asbestos% ND	Other fibers% None Detected		Non-fibrous% 99-100% Qtz, Fldsp, Other m.p.								
Notes	Collection Date/Time: Oct-23-04 /						Anal Date: Apr-28-05		Analyst: SF		
Sample Prep Method(s):	Ground						QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type

Description:											
Color:	Homogeneity:		Friability:		Texture:		MacroAsb%				
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time: /						Anal Date:		Analyst:		
Sample Prep Method(s):							QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

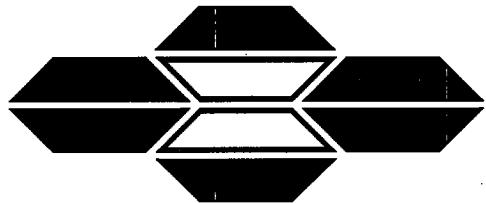
Description:											
Color:	Homogeneity:		Friability:		Texture:		MacroAsb%				
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time: /						Anal Date:		Analyst:		
Sample Prep Method(s):							QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogeneity:		Friability:		Texture:		MacroAsb%				
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time: /						Anal Date:		Analyst:		
Sample Prep Method(s):							QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogeneity:		Friability:		Texture:		MacroAsb%				
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time: /						Anal Date:		Analyst:		
Sample Prep Method(s):							QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Description:											
Color:	Homogeneity:		Friability:		Texture:		MacroAsb%				
Total Asbestos%	Other fibers%		Non-fibrous%								
Notes	Collection Date/Time: /						Anal Date:		Analyst:		
Sample Prep Method(s):							QC Date:				
Method	Morphology	Color	Pleoch	RI Par	RI Prp	Biref	Sign	ExtAn	%	%	Fibers Type
											Talc
											Talc
											Cellulose
											Talc
											Cellulose

Date: May/21/2005



## **ASBESTOS TEM LABORATORIES, INC.**

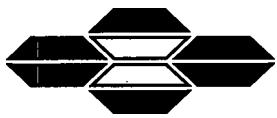
**NIOSH 9002 Method  
Polarized Light Microscopy**

## **Final Report**

**Laboratory Job #: 741-00021**

**1409 Fifth Street, Suite C  
Berkeley, CA 94710  
(510) 528-0108 Phone  
(510) 528-0109 Fax  
[www.asbestostemlabs.com](http://www.asbestostemlabs.com)**

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ASBESTOS TEM LABORATORIES,  
INC.

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U.S. Dept. of Commerce  
**NVLAP**  
CA DOHS ELAP

Mar-09-05

Mr. Howard Edwards  
Ecology and Environment, Inc.  
350 Sansome Street, Suite 300  
San Francisco, CA 94104

Re: LABORATORY JOB # 741-00021  
2 Polarized light microscopy analytical results for bulk sample(s).  
Job Site: El Dorado Hills

Enclosed please find the bulk material analytical results for two samples submitted for asbestos analysis. The analyses were performed in accordance with NIOSH 9002 for the determination of asbestos content of bulk materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on bulk samples, it needs to be aware that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood and analyzed following the NIOSH 9002 method. The analytical data is then compiled into standard report format and subjected to a thorough quality assurance check before the information is released to the client.

Sincerely Yours,

Yanxia Xie  
Lab Manager  
ASBESTOS TEM LABORATORIES, INC.

--- These results relate only to the samples tested and must not be reproduced, except in full, with the approval of the laboratory. This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. ---



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**NVLAP**  
CA DOHS ELAP

**Polarized Light Microscopy  
Analytical Report**

Client Sample ID	Lab Sample ID	Description	Analysis Method	% Chrysotile Asbestos	% amphibole asbestos	% Fiberous non-asbestos	% non-fiberous non-asbestos	Detection Limit	Analyst Initials	Analysis Date	QC	
											Analyst Initials	Date
EDH-ZP2-022305	741-00021-001	Soil - Brown	NIOSH 9002	1-5% (3%)	1-5% (2%) Tremolite	<1%	90-98% (95%)	1%	SK	03/04/2005	DV	03/04/2004
EDH-ZP2-022305	741-00021-002	Soil - Brown	NIOSH 9002	5-10% (8%)	5-10% (6%) Tremolite	0	80-90% (86%)	1%	SK	03/04/2005	DV	03/04/2005

Lab QC Reviewer:

Analyst:

## ASBESTOS TEM LABORATORIES, INC.

LOG#: 048659

## PLM BULK SAMPLE LOGIN REPORT

INVOICE #: 70032

ANALYSIS REQUESTED:

PLM-STANDARDURGENCY: 6-10 DAYSDATE / Feb-24-05  
TIME IN: 10:15 amCLIENT NO: 741LOT NO: 00021

Total Samples:

2DATE / Mar-10-05  
TIME DUE: \_\_\_\_\_JOB SITE: El Dorado HillsLogged by: IVCONTACT: Mr. Howard EdwardsJOB NO: DELIVERED BY: FedEx SSAMPLE CONDITIONS: EXCELLENT

SPECIAL INSTRUCTIONS

 FAX 415-981-0801 E-MAILtedwards@ene.com

Invoice To:

See marketing screen for more info!!!

tjohnson@ene.comREVIEWED VX

E-MAILED

Mailed

CL#-LOT-SAMP	CLIENT#	DESCRIPTION
741-00021-001	EDH-ZP2-022305	
741-00021-002	EDH-ZP3-022305	



# POLARIZED LIGHT MICROSCOPY: DATA SHEET

**ASBESTOS TEM LABORATORIES**

Lab I.D. #: 741-21-1

Job Site: EL DORADO HILL

## MACROSCOPIC PROPERTIES:

Homogeneity: Low  Med.  High

Friable:  Non-friable:

Texture: Powdery

Macroscopic est. of % asbestos: 5-10%

Description: \_\_\_\_\_

Color: BEIGE

## Optical Properties Of Fibrous Constituents:

Morphology	Color	Pleochroism	Ref. Index Perp./Parall.	Birefr.	Ext. Angle	Sign of Elong.	Other Properties	%	Non- Asbestos	%	Asbestos
Wavy fibers and bundles with splayed ends. A Ratio >10:1	clear	None	$n=1.554$ $\alpha=1.548$	L	P	+	Dis. Stain. Color: r = Blue $\alpha$ = Red-Purple			1-5	Chrysotile (3)
Straight blades and needles	clear	None	$r=1.627$ $\alpha=1.619$	H	I o-10°	+	D.S.C. r = Blue/Orange $\alpha$ = yellow			1-5	Tremolite (2)

Non-fibrous material I.D.: Quartz, Opaque, Other m.p.

5-10

% ASBESTOS

% NON-ASBESTOS, FIBROUS

90-95

% NON-FIBROUS

Comments: \_\_\_\_\_

Signature: John R.



# POLARIZED LIGHT MICROSCOPY: DATA SHEET

ASBESTOS TEM LABORATORIES

Lab I.D. #: 741-21-2

Job Site: EI DORADO HILLS

Client I.D. #: EDH-ZP3-022805

Location: \_\_\_\_\_

Description: \_\_\_\_\_

Color: Berige

## MACROSCOPIC PROPERTIES:

Homogeneity: Low  Mod.  High

Friable:  Non-friable:

Texture: Powdery

Macroscopic est. of % asbestos: 10-20%

## Optical Properties Of Fibrous Constituents:

Morphology	Color	Plachroism	Ref. Index Perp./Parall.	Birefr.	Ext. Angle	Sign of Elong.	Other Properties	%	Non- Asbestos	%	Asbestos
wavy fibers and bundles	clear	None	r = 1.554 d = 1.548	L	P	+	D-S-C r = blue d = red purple			5-10 (8)	Chrysotile
straight fibers and needles	clear	None	r = 1.627 d = 1.619	H	I 10	+	D-S-C r = Blue, Orange d = Yellow			5-10 (6)	Tremolite

Non-fibrous material I.D.: Quartz, opaque, Other m-p

10-20
80-90

% ASBESTOS

% NON-ASBESTOS, FIBROUS

% NON-FIBROUS

Comments: \_\_\_\_\_

Signature: John D. R.



## ASBESTOS TEM LABORATORIES

Lab I.D. #: 741-21-1

Client I.D. #: EDT - 282-022305

Description: composite material

## POLARIZED LIGHT MICROSCOPY: DATA SHEET

## MACROSCOPIC PROPERTIES:

Homogeneity: Low  Mod.  High Friable:  Non-friable: 

Texture: Powdery - Granular

Macroscopic est. of % asbestos:

## Optical Properties Of Fibrous Constituents:

Morphology	Color	Pleochroism	Ref. Index Perp./Parall.	Birefr.	Ext. Angle	Sign of Elong.	Other Properties	%	Non- Asbestos	%	Asbestos
wavy fibers	colorless	None	n <sub>perp</sub> : 1.554 n <sub>par</sub> : 1.549	Mod	/	+				1-5%	chrysotile 3%
needle-like straight thin fibers	pink to colorless	None	n <sub>perp</sub> : 1.637 n <sub>par</sub> : 1.618	M	0°/45° +10°	+				1-5% 2%	Tremolite

Non-fibrous material I.D.:

Otz, Misc frags, Amph, Org

2-10%

% ASBESTOS

% NON-ASBESTOS, FIBROUS

90-98%

% NON-FIBROUS

Comments:



# POLARIZED LIGHT MICROSCOPY: DATA SHEET

ASBESTOS TEM LABORATORIES

Lab I.D. #: 741-21-2

Job Site: El Dorado Hills

## MACROSCOPIC PROPERTIES:

Homogeneity: Low  Med.  High

Friable:  Non-friable:

Client I.D. #: EDH-ZP2-022305

Location: \_\_\_\_\_

Texture: gritty-powd

Description: composite

Color: Brown

Macroscopic est. of % asbestos:

## Optical Properties Of Fibrous Constituents:

Morphology	Color	Pleochroism	Ref. Index Perp./Parall.	Birefr.	Ext. Angle	Sign of Elong.	Other Properties	%	Non- Asbestos	%	Asbestos
wavy fibers bundles	colorless	None	nII: 1.554 nI: 1.544	H	/ /	+				5-10% 8%	Chrysotile
needles straight fibers	colorless	none	nII: 1.627 nI: 1.618	H	6514m 0-11°	+				5-10% 8%	Tremolite

Non-fibrous material I.D.: Alsc frags, Q12 off, Amph.

10-20%

% ASBESTOS

86-90%

% NON-ASBESTOS, FIBROUS

% NON-FIBROUS

Comments: \_\_\_\_\_

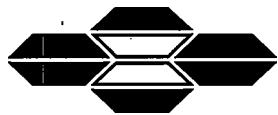
Signature: D. Leyva/V. Vazquez C.

Date: 3-4-05



## **ASBESTOS TEM LABORATORIES, INC.**

**1409 Fifth Street, Suite C  
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(510) 528-0108 Phone  
(510) 528-0109 Fax**



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**NVLAP**  
CA DOHS ELAP

## Attachments

1. Client COC form
2. Laboratory Sample Login Sheet
3. Analyst Raw Data Sheets
4. QC Analyst Raw Data Sheets

## **CHAIN OF CUSTODY RECORD**

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 28915



**ecology and environment, inc.**

350 SANSOME STREET, SUITE 300, SAN FRANCISCO, CALIFORNIA 94104, TEL. (415) 981-2811

International Specialists in the Environment

**SCOPE OF WORK  
Region IX START**

**El Dorado Hills Naturally Occurring Asbestos  
Project**

**Performance Evaluation Soil Analysis by PLM and TEM**

**PAN: 001275.0440.01TA  
TDD Number: 09-04-0-0011**

**1.0 GENERAL**

Ecology and Environment, Inc., (E & E), with a business office located at 350 Sansome Street, Suite 300, San Francisco, California 94104, has entered into a contract (Contract No. 68-W-01-012) with the U.S. Environmental Protection Agency (US EPA) to procure as needed various analytical services.

The US EPA has directed E & E to analyze two soil performance evaluation (PE) samples. The performance evaluation samples were developed by a contractor for the US EPA Region 9 Quality Assurance Office.

**2.0 ANALYTICAL REQUIREMENT**

**2.1 PURPOSE OF ANALYSIS**

E & E will submit the (PE) samples for analysis. The specific analysis parameters required are indicated in sections 2.2, 2.3, 2.4, 3.0 and 4.0. The data will be used by the US EPA as part of a PE study of asbestos in soil.

**2.2 SPECIFIC PROJECT REQUIREMENTS**

All laboratory services will be provided by the E & E contracted laboratory with no subcontracting of analyses allowed. Air samples will be initially analyzed for asbestos fibers following NIOSH 9002, *Asbestos by Polarized Light Microscopy*. If asbestos is not detected

sample at a concentration of greater or equal to 1 percent by area following NIOSH 9002, then the sample will be further analyzed by Transmission Electron Microscopy following *EPA 600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials Method*.

Specific project requirements and specifications for the method are listed in Table 2-1, Table 2-2 and Table 2-3. Other required specification are described in sections 3 through 5 of this SOW.

To insure quality for the analytical project the following measures are required:

- All analyses will be conducted by a NVLAP-certified laboratory for the analysis of asbestos fibers.
- The laboratory must provide documentation of successful proficiency in detection of "Libby amphibole" asbestos.
- The laboratory must conduct zone axis patterns measurement and quantitative EDS chemistries for identification.
- The laboratory will have previous experience in the determination of chrysotile, regulated amphibole asbestos fibers in soil by the specified NIOSH and EPA methodologies.
- The laboratory will have previous experience in the determination and reporting of non-regulated amphibole by PLM and TEM.
- The laboratory will have previous experience with providing detailed analytical documentation of analysis to support US EPA projects.
- Analytical precision will be documented with duplicate and replicate analyses.
- The laboratory must willing and able to provide technical assistance to START project management regarding analysis prior to and after generation of data.

### **2.3 TURNAROUND TIME**

Sample data turnaround for PLM and TEM data is 10 days from sample receipt. The report turnaround requirements for samples are specified in Table 2-2. Turnaround times for Data packages is also specified in Table 2-2.

### **2.4 ANALYTICAL PROTOCOL REQUIRED**

Samples for PLM analysis are to be analyzed, documented, and reported as specified in the NIOSH 9002 and this SOW. Samples for TEM analysis are to be analyzed, documented, and reported as specified in the *EPA 600/R-93/116* method and this SOW. Any modifications to these protocols should be specified and approved prior to acceptance of project. Protocol, procedures and parameters not discussed in the method or specified in this SOW should be addressed in the laboratory Standard Operating Procedure (SOP) for PLM analysis NIOSH 9002 and by TEM analysis by *EPA 600/R-93/116*.

**Table 2-1**  
**Summary of**  
**Samples to be Collected**

<b>Method:</b>	NIOSH 9002, <i>Asbestos by Polarized Light Microscopy</i>	<i>EPA 600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials Method.</i>
<b>Sample Container:</b>	Prepared sample mass ranging from 5 to 10 grams.	
	<b>Number of Samples</b>	<b>Number of Samples</b>
	2 PE Samples	2 PE Samples

**Table 2-2**  
**Analytical Requirements**  
**for El Dorado Hills Naturally Occurring Asbestos**

<b>Each samples will be dried, milled, sieved and packaged in a seal bag with custody documentation.</b>		
<b>Sample collection dates: October 2004</b>		<b>Sample delivery date: February 2005</b>
<b>Method</b>	<b>Specification</b>	<b>Turnaround Times</b>
NIOSH 9002, <i>Asbestos by Polarized Light Microscopy</i>	<ul style="list-style-type: none"> <li>-Detection Limit: 1 %</li> <li>-Screening level: 1 %</li> </ul>	<p><b>Final Data Report:</b></p> <p><b>Samples:</b> Within 10 working days of receipt.</p> <p><b>Data Package:</b></p> <p><b>All Samples:</b> Within 10 working days of final report.</p>
<i>EPA 600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials Method.</i>	<ul style="list-style-type: none"> <li>-Preparation and analysis of samples that have PLM concentration less than 1%.</li> <li>-Detection Limit: 0.0025% by weight</li> <li>-Aspect Ratio: All asbestos structures with an aspect ratio greater than or equal to 3:1 will be counted irrespective of length.</li> <li>-Identification of fibers.</li> </ul>	<p><b>Final Data Report:</b></p> <p><b>Samples:</b> Within 10 working days of receipt.</p> <p><b>Data Package:</b></p> <p><b>All Samples:</b> Within 10 working days of final report.</p>

**Table 2-3**  
**For TEM Analysis only**  
**Analytical Requirements per Each Sample**  
**for El Dorado Hills Naturally Occurring Asbestos**

Mineral Identification of Representative Structures	
- Identification of asbestos forms shall include the following:	
<u>Regulated</u> - tremolite, anthophyllite, actinolite, crocidolite, amosite and chrysotile <u>Other amphibole asbestos forms</u> - winchite, richterite, ferro-edenite, magnesio-arfvedsonite, and magnesio-reibeckite <u>Non-Asbestos Material</u> - all other mineralogy	
Structure Classification for Each Structure	
Dimensions for Each Structure	
<b>Counting</b> <i>(All structures with aspect ratio of greater than or equal to 3:1)</i> Counted structure shall include the following: <u>Regulated</u> - tremolite, anthophyllite, actinolite, crocidolite, amosite and chrysotile <u>Other amphibole asbestos forms</u> - winchite, richterite, ferro-edenite, magnesio-arfvedsonite, and magnesio-reibeckite  Primary Structure Counts (Irrespective of Length). Structures with Lengths Greater than 5 $\mu\text{m}$ . Fibers and Bundles with Lengths Greater than 5 $\mu\text{m}$ .	
<b>Calculations</b> Counted structure shall include the following: <u>Regulated</u> - tremolite, anthophyllite, actinolite, crocidolite, amosite and chrysotile <u>Other amphibole asbestos forms</u> - winchite, richterite, ferro-edenite, magnesio-arfvedsonite, and magnesio-reibeckite  Asbestos Structures Per Square Millimeter 95 % Confidence Interval for Each Reported Concentration	
<b>Parameters</b> Analytical Sensitivity Grids Opened Area of Filter Analyzed Total Filter Area	

### **3.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS**

Method-specific quality assurance/quality control (QA/QC) requirements specified in the PLM and TEM methods are to be followed with the following specifications.

**The following replicate and duplicate analyses are required for all samples analyzed by TEM:**

Replicate Analysis:	New grids counted by same analyst:	% 5
Replicate Analysis:	New preparation by same analyst:	% 5
Duplicate Analysis:	Same grids recounted by different analyst:	% 5
Duplicate Analysis:	New grid counted by different analyst:	% 5
Duplicate Analysis:	New preparation by different analyst:	% 5

**Other QA/QC requirements should include analysis of a laboratory control standard, process blanks and filter blank with each group of samples.** A determination of a blind internal laboratory control sample by the analyst during the analysis phase of this project is recommended. However, if this is not practical, documentation of the primary analyst performance results from the most recent quarterly inter-laboratory performance verification may be substituted in lieu of a laboratory control sample. The quality assurance limits used to evaluate the QA/QC samples must be indicated with quality assurance data reporting.

The laboratory is expected to adhere to standard laboratory practices when analyzing samples and documenting results. Questions concerning specific sample analyses should be addressed prior to analysis of samples. If the laboratory has any questions or problems concerning the analysis of received samples, E & E should be notified immediately by phone, followed by a letter in hard copy that discusses the problem(s) and associated resolution(s). All correspondence between the laboratory and E & E should be documented in the data package. **If established QC limits are exceeded, appropriate actions must be taken to correct or address the problem. Re-analysis of the affected samples is required for all non-matrix related problems.**

### **4.0 DELIVERABLES REQUIREMENTS**

Samples analyzed by the laboratory for this project will require the following deliverables:

- Final data report
- Complete data package

#### **4.1 FINAL DATA REPORT**

The final data report may be reported either in a summary table or on individual sample sheets. Reports must be signed and should either be hard copies sent by mail or image files sent by e-mail or mail. The data should be clearly identified as being final. All QC summary information must be included.

The following data is required in the final report for PLM analyses:

Narrative on conditions of sample, method, counting rule, and summary of any quality assurance or quality control problems encountered during analysis.

For each PLM sample and all PLM QC samples include client sample name, laboratory identification number, appearance, % fiberous non-asbestos, % non-fiberous non-asbestos, % chrysotile asbestos, % amphibole asbestos, analytical sensitivity, analyst, and analysis date.

The following data is required in the final report for TEM analyses:

For each TEM sample and all TEM QC samples, include client sample name, laboratory identification number, analytical sensitivity, grids opened, filter area, area analyzed, analyst, and analysis date.

For each regulated asbestos include the following: primary structures in weight percent, primary structures > than  $5 \mu\text{m}$  in length in weight percent, asbestos fiber and bundles >  $5 \mu\text{m}$  in length in weight percent, 95 % confidence interval.

For each other amphibole asbestos include the following: primary structures in weight percent, primary structures > than  $5 \mu\text{m}$  in length in weight percent, asbestos fiber and bundles >  $5 \mu\text{m}$  in length in weight percent, 95 % confidence interval.

For each sample and all QC samples, include the TEM Asbestos Fiber Count-Raw data information table. This table should include for each grid, the grid number, grid coordinates, primary and total structures, lengths, width, structure type, and asbestos type.

#### 4.2 COMPLETE PROJECT DATA PACKAGE

The final data package may be reported either as a compilation of printed data or as a compact disk-read only memory (CD-ROM) with image files that are a facsimile of the printed data package. The image file should be in portable document format (pdf).

The data package shall include all copies of the original documentation generated in support of a method performed under the contracted Statement of Work. The data packages will be used to demonstrate and document that all requirements of the method have been met. The data packages will be used to support US EPA decisions and cost recovery efforts. Data and data packages may be used to support US EPA civil enforcement activities. The documentation includes, but is not limited to, sample tags, custody records, shipping information, standard preparation records, sample preparation/extraction records, and sample analysis record including printouts and copies of log pages or copies of log sheets. The laboratory must maintain all original information and documentation required in the data package for five years. All related method records in permanently bound notebooks and all related computer files must also be maintained for five years. Otherwise, the laboratory must provide original documents and files in the data package rather than copies.

The following deliverables are required in the data package. The following data requirements are included to specify and emphasize general documentation requirements and are not intended to supercede or change the requirements of each method.

- Raw data (to support all summary data) should include the following:
  1. Copies of all analysis preparation sheets.
  2. Copies of all analyst count sheets.
  3. Copies of all information necessary to calculate data reported in the final data report.
- Pages within the final data report and data validation package will be numbered sequentially.
- A copy of the laboratory's certification for TEM analysis must be included with data validation package.

## 5.0 ADDITIONAL REQUIREMENTS

All samples and prepared materials related to the samples must be held for six months. Prior to disposal of any sample, E & E must be notified and may require that the samples be returned to E & E, at E & E cost.

Disposal of samples and sample containers must be in compliance with local, state, and federal regulations and will be the responsibility of the laboratory. **Disposal cost must be included in the price of analysis.**

The data package will be independently validated within two months of package receipt. The laboratory will likely be contacted during the validation process to clarify any discrepancies or problems. The laboratory will perform corrective action as required. **All post sampling costs related to validation and corrective actions must be included in the price of analysis.**

All hard and electronic data generated in relation to E & E projects must be archived for five years.

Audits may be performed by E & E or the US EPA Quality Assurance Office. Performance Evaluation samples may be submitted to the laboratory at any time.

All work must be performed by the contract specified laboratories.

Howard Edwards  
Ecology and Environment, Inc.  
350 Sansome, Suite 300  
San Francisco, CA 94104  
(415) 981-2811  
(415) 981-0801 FAX  
[Hedwards@ene.com](mailto:Hedwards@ene.com)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

FACSIMILE

Mark Bailey  
Laboratory Director  
Asbestos TEM Laboratory  
Berkeley, California

Dear Mr. Bailey:

I am writing to provide formal notification of results of two recent asbestos containing performance evaluation (PE) samples analyzed by PLM and TEM by Asbestos TEM Laboratory, and reported on March 9, 2005. The PE samples contained Chrysotile, and Tremolite in soil at approximately 0.5% in one PE and approximately 2% in the second PE.

Asbestos TEM performed well on the analyses. The fibers were correctly identified. There is some consistent overestimation, however, the results are considered to be within an acceptable range.

Please contact me 415-972-3802 if you have any questions.

Sincerely,

Stephen E. Remaley  
Chemist/Regional Contract Lab Program Project Officer  
415-972-3802

OPTIONAL FORM 64 (7-90)

FAX TRANSMITTAL		# of pages ►
To <i>Lisa Johnson</i>	From <i>Remaley</i>	
Dept./Agency <i>PL</i>	Phone # <i>415-972-3802</i>	
Fax #	Fax #	

NSN 7540-01-3117-7398

0068-101

GENERAL SERVICES ADMINISTRATION

## **Preparation of Soil Samples Quantitatively Mixed with Tremolite and Chrysotile Asbestos**

### **Equipment and Materials**

- NIST SRM Tremolite Asbestos
- NIST SRM Chrysotile Asbestos
- Local soil from Chatham County, NC
- Multi-speed blender
- Stirring utensils
- Metal drying pans
- Ultraviolet drying lamps
- Hot plate

Two batches of asbestos in soil were created; one batch contained 0.5% each of chrysotile and tremolite, and the other contained 2% each of chrysotile and tremolite. A total of one hundred grams was the target weight for each of the two sample batches. For the sample concentration of 0.5%, 99 grams of dried soil was weighed, and 0.5 grams of each asbestos SRM was weighed for mixing. In the case of the 2.0% concentration sample, 96.0 grams of dried soil was used and 2.0 grams each of the two asbestos types were weighed for mixing.

Once all components were weighed, 8 oz. of distilled water was poured into the blender jar and the two asbestos types were mixed on the highest setting for 30 seconds, the soil was then added and the components were blended together for another 45 seconds for the 0.5% concentration and another 60 seconds of blending for the 2.0% sample. Each of these wet mixtures was then poured into a drying pan and labeled as to their asbestos concentration and dried under heat lamps and on hot plates until completely dry.

The materials were then packaged into plastic vials and labeled according to their concentration. Aliquots from each vial were used to make quantitation slides for visual estimates and for point count slides. The results of quantitation are shown below.

Quantitation of Asbestos/Soil Mixtures		
Concentration	Visual Estimate Result	Point Count Result
0.5% Chrysotile + 0.5% Tremolite	0.47% Chrysotile 0.59% Tremolite	1.4% Chrysotile 1.2% Tremolite
2% Chrysotile + 2% Tremolite	1.85% Chrysotile 2.92% Tremolite	4.7% Chrysotile 3.9% Tremolite

Thickness differences between the soil matrix particles and the asbestos bundles are speculated to have caused the biased high results on the point counts.

**Production date: October 6, 2004**

**Produced for: Steve Remaly, Region 9 USEPA, telephone 415-972-3802, email  
[Remaley.Steve@epamail.epa.gov](mailto:Remaley.Steve@epamail.epa.gov)**

**Produced by: Owen Crankshaw, RTI International, P.O. Box 12194, Research Triangle Park, NC,  
27709, telephone 919-541-7470, email [osc@rti.org](mailto:osc@rti.org)**

**Johnson, Lisa**

---

**From:** Mark Bailey [MBailey@AsbestosTEM Labs.com]  
**Sent:** Tuesday, June 07, 2005 4:22 PM  
**To:** Johnson, Lisa  
**Subject:** Asbestos TEM Labs - Additional Data for El Dorado QC  
**Attachments:** E&E El Dorado Data.pdf

Hi Lisa,

Here is the additional data you requested including microscope check log, RI index oil log & analyst notes.

Thanks,

Mark Bailey, RG  
President  
Asbestos TEM Laboratories, Inc.

741-23 ...

polka dots: sample 0034

2 pieces: 13/107 pts.

Try again - strip cuttings from: 8/104

aspects: 6/107 → 2/100, 4/105

1.605 oil - int. indices higher

using 1.640 & 1.680 oils - actin. [-1.652, 1.672]

(#18 - indices seem close)

to 1.645, 1.66

#25 - both at 1.68

& 1.67 = ?

↑ ↓  
very close  
but diff.  
below

≈ 1.638

Author 11 is (21.64)

001 brn ~1%

←

002 ~3%? } -clad.

003 ~2% }

004 mostly downward to ~3%

5 <1% actin. needles? (clad: 1/97, 0/73)

6 <1%

7 (2/74) ... ←

8 <1%

9 <1% ← MB <1%

10 ~1-2%? (3/113)

11 brn 1-3% cut.

12 1-2%

13 2-3%? (4/136) ✓ ←

14 brn ~1%

←

←

15 lots of coll. & lg. grns, <1% -

16 <1%

17 trace

B - trees

19 - brn  $\leq 1\%$

MB ✓ ~1

20 " "

21 " pubes  $\geq 2\%$

22 beige  $\leq 1\%$

MB ✓ ~1

23 brn  $\sim 2-3\%$

MB  $\geq 2\%$  ✓

24 "  $\leq 1\%$

25  $\sim 1\%$ ? (chart - 1/107)

MB  $\leq 1\%$

26 brn  $\leq 1\%$

27 brn  $\sim 1-2\%$

MB ✓ 1-2%

28 beige  $\leq 1\%$

29 brn  $\leq 1\%$

30 beige  $\leq 1\%$

31 brn  $\leq 1\%$

32  ~~$\sim 1\%$~~   $\sim 1\%$  (2/104 pt<sub>2</sub>)

MB - 2%

33 brn  $\sim 3\%$ ? (3/118 pt<sub>2</sub>)

34 red-brn 1-2%

35 " "  $\leq 1\%$

36 brn  $\sim 2-4\%$

37 "  $\sim 1-2\%$

MB ✓ 1-2%

38 "  $\sim 2-4\%$

39 brn  $\sim 1-2\%$

40 " " " MB 1-2% ✓

41 "  $\sim 1-2\%$  (3/117 pt<sub>2</sub>) MB  $\leq 1\%$

42 "  $\leq 1\%$

43 "  $\sim 1\%$

44 "  $\sim 2\%$  MB 1-2% ✓

45 "  $\leq 1\%$  ( $\leq 1\%$ )

- 46 beige or orang brn  $\leq 1\%$   
47 dk brn  $\sim 1-2\%$   
48 brn  $\leq 1\%$   
49 "  $\leq 1\%$  MB  $\leq 1\%$  ✓  
50 "  $\leq 1\%$   
51 "  $\sim 2$  (-3) % w/Hb!  
52 "  $\sim 2\%$   
53 "  $\leq 1\%$   
54 "  $\leq 1\%$   
55 beige  $\leq 1\%$   
56 "  $\leq 1\%$  MB  $\leq 1\%$  ✓  
57 brn  $\sim 1\%$  (z1)  
58 orang-brn  $\leq 1\%$

741-23 ...

poly counts: single (SD 4)

2 groups: 13/107 pts -

Tiny equal - sized extra fibers: 8/104

equal: 6/107 → 2/100, 4/105

1.645 oil — both indices higher

using 1.640 & 1.680 oils — actin. [~1.652, 1.672]

(d18 = Nodules seem to  
to 1.645, 1.66)

003: 2/102 pts

002: 3/102

\*25 - toothed 1.68  
in 1.64 oil:  $\frac{1}{2}$  ✓

very clear  
blue disp.

001 brn ~1%

←

another 11 is (2/14)

002 ~3% ? } -clear

003 ~2% }

004 mostly downward to ~3%

≤ 1% actin needles? (check: 3/12, 0/13)

6 ≤ 1%

7 (2/7) - ... ←

8 ≤ 1%

9 ≤ 1% Tr ≤ 1%

10 ~1-2% ? (3/11)

11 Brn 1-3% act.

12 1-2%

13 2-3% ? (4/13) ✓

14 brn ~1%

- ←

15 lots of coll. & big gran., ≤ 1% -

16 ≤ 1%

17 + more

B - trace

19 - brn < 1%

Tr < 1%

20 " "

21 " poly's 2%

22 beige < 1%

< 1%

23 brn ~2-3%

-2%

24 " < 1%

25 ~1%? (clust - 1/107)

< 1%

26 brn < 1%

27 brn ~1-2%

1-2%

28 beige < 1%

29 brn < 1%

30 beige < 1%

31 brn < 1%

32 ~1%? (2/103 pt.)

-2%

33 brn ~3%? (3/118 pt.)

34 red-brn 1-2%

35 " " < 1%

36 brn ~2-4%

37 " ~1-2%

1-2%

38 " ~2-4%

39 brn ~1-2%

40 " " "

-2%

< 1%

41 " ~1-2% (3/117 pt.)

42 " < 1%

43 " ~1%

44 " ~2%

1-2%

45 " < 1% (<< 1%)

46 beige or orang brn ~1 oz

47 dk brn ~1-2 oz

48 brn ~1 oz

49 " ~1 oz

50 " ~1 oz

51 " ~2 (-3) oz, w/Hb!

52 " ~2 oz

53 " ~1 oz

54 " ~1 oz

55 beige ~1 oz

56 " ~1 oz

57 brn ~1 oz (z1)

58 orang-brn ~1 oz

(L13)

(L16)

741-00024-

001	orange	~2-3%	27	brn	<1%	TV 218
002	beige	~1-2%	28	beige!	<1%	
3	"	1-2%	29	"	<1%	
4	"	"	30	"	<1%	
5	"	<1%	31	"	<1% (1-2%)	
6	brn	<1%	32	brn	<1%	
7	"	1-3%	33	"	<1%	
8	"	<1%	34	brn	<1%	
9	"	<1%	35	"	>1%	
10	"	<1%	36	"	<1% (close to)	
11	"	1-(2)%	37	"	1-2%	V <1%
12	"	1-2%	38	"	<1%	
13	"	1-2%	39	"	~2-3%	3-5%
14	"	<1% ( $\geq 1\%$ )	40	orange	<1% (close to)	
15	"	<1% (<1%)	41	brn	~3%	
16	"	<1% ( $\geq 1\%$ )	42	"	>1% (~1%)	
17	"	1-2%	43	"	<1%	
18	brn	~2%	44	orange	<1%	
19	"	<1% ( $\leq 1\%$ )	45	brn	2-3%	2-3%
20	"	"	46	"	<1% ( $\geq 1\%$ )	
21	orange	<1% ( $\geq 1\%$ )	47	orange	<1%	
22	brn	<1% ( $\geq 1\%$ )	48	brn	"	(1)
23	brn	<1%	49	brn	1-2%	+ chrys?
24	"	<1%	50	brn	1-2%	
25	"	<1%	51	"	<1% (less 2)	(less 2)
26	"	<1%	52	"	<1% (close) (1%)	(1%)
			53	"	<1%	

741-00024-

54 Brn  $\sim 1\%$

55 "  $\sim 1\%$

56 "  $\sim 1\%$

57 beige  $\sim 2\%$

58 brn  $\sim 1\%$

59 gray  $\sim 1\%$

60 beige  $\sim 1\%$

S.31 -01143 Log #49479

~~left off white acoustic cert. w/ peat~~

~~middle - fibers visible in soil~~

soil pulled, cleaned, heated.  
6 inches point

49403 - soils

$\sim 1\%$  organic, 55, 46+, 59<sup>other</sup>, 59+

-1 no change, depth  $\leq 1\%$  extn  $\sim 15^{\circ}$

true 1.625 (1)  
1.60 (1)

Sd cont - 741-00025 -

(all in 1.6 Yrs old)

001 bge ~1% (21) ←

2 brn 1-2%

3 bge 2-3%

3-5%

4 brn >1%

5 bge >1%

6 bge (>1%)

7 bge >1%

8 bge >1%

9 bge >1%

10 bge >1%

11 bge <1%

12 brn <1%

13 bge >1% ←

14 bge ~1% (2) ← glass Galss #1

15 brn <1% w/glass

~1%

16 brn <1% (close)

17 brn <1% n/opg's (1)

18 brn <1%

19 bge <1%

20 brn <1% opg's (1)

21 grey <1%

22 brn <1% glass #3

23 brn <1% "

24 brn <1%

25 brn <1% glass #3

Tr. 41

✓ 25 brn <1%

✓ 27 brn <1%

✓ 28 brn <1%

✓ 29 brn <1%

✓ 30 brn <1%

✓ 31 gray <1%  $\gamma_{655} \approx 2$

✓ 32 beige <1%

✓ 33 brn <1%

✓ 34 brn <1%

✓ 35 brn <1%

✓ 36 brn <1%

✓ 37 brn <1%

✓ 38 brn <1%

✓ 39 gray <1%

✓ 40 brn <1%

Jr. 41%

Jn <1%

Jv 41%

191-000 26 - h 16x2 oil

- 001 brn <1%

- 0 brn <1%

- 2 brn <1%

- 4 brn <1%

- 5 brn <1%

- 6 brn <1%

- 7 brn <1% (in 1%)

- 8 brn <1%

- 9 brn  $\approx 1\%$  (?)

- 10 beige "

- 11 brn  $\approx 1\%$

- 12 brn  $\approx 1\%$ ?

- 13 beige <1

- 14 gray <1

- 15 beige <1%

- 16 gray <1

- 17 brn  $\approx 1\%$  (2.1)

- 18 beige <1

- 19 beige <1

- 20 brn <1

L15r

Jr. 41%

WABA

26 cont'd

MPS

✓ 21 brn

71 2

≤1%

✓ 22 brn

P/102

✓ 23 brn

71 2

✓ 24 brn

71 2

✓ 25 beige

71 2

→ ✓ 26 brn

71 2

✓

✓ 27 grey ND

g, f, p, o, r, n

✓ 28 grey "

"

✓ 29 brn <1

✓ 30 brn <1

≤1%

✓ 31 grey <1 (tree) ← g, f, p, o, r, n

✓ 32 grey " " ← - - -

No ✓ 33 grey tree ← - - -

✓ 34 grey ND

✓ 35 brn <1

✓ 36 orange ~1 2 (71)

✓ 37 grey ND

✓ 38 brn 71 2

✓ 39 grey tree (<1) ←

✓ 40 grey "

✓ 41 grey <1 (but tree) ←

✓ 42 brn <1 →

✓ 43 brn 71

✓ 44 brn 71

✓ 45 grey tree ←

✓ 46 brn 2(3) 2

g, f, p, o, r, n

No

Asbestos TEM Laboratories, Inc.  
Daily PLM Microscope Calibration Sheet

Date	Analyst	Polarizer and analyzer are oriented at 90 degrees to one another?	Ocular cross-hairs coincide with privileged directions?	Objectives are centered to prevent grains from leaving the field of view during substage rotation?	Substage condenser and iris diaphragm are centered in the optic axis?	Substage condenser is positioned such that the image of the condenser aperture is in focus?	Other adjustments
4/25	SF	✓	✓	✓	✓	✓	—
4/26	SF	—	—	—	✓	✓	—
4/27	SF	—	—	—	✓	—	—
4/28	SF	—	—	—	—	—	—
4/29	SF	✓	—	—	—	—	—
5/2	SF	—	—	—	—	—	—
5/3	SF	✓	—	—	—	—	—
5/4	SF	✓	—	—	✓	—	—
5/5	SF	—	—	—	—	—	—
5/6	SF	✓	✓	—	—	—	—
5/9	SF	—	—	—	—	—	—
5/10	SF	—	—	—	—	—	—
5/11	SF	—	—	—	✓	—	—
5/12	SF	—	—	—	—	—	—
5/13	SF	—	—	—	—	—	—
5/16	SF	—	—	—	—	—	—
5/17	SF	—	—	—	—	—	—
5/18	SF	—	—	—	—	—	—
5/19	SF	—	—	—	—	—	—
5/20	SF	—	—	—	—	—	—
5/23	SF	—	—	—	—	—	—
5/24	SF	—	—	—	—	—	—
5/25	SF	—	—	—	—	—	—
5/26	SF	—	—	—	—	—	—
5/27	SF	—	—	—	—	—	—
5/31	SF	—	—	—	—	—	—

**Asbestos TEM Laboratories, Inc.**  
**Monthly Refractive Index Oil Calibration Sheet**



UNITED STATES DEPARTMENT OF COMMERCE  
National Institute of Standards and Technology  
Gaithersburg, Maryland 20889

June 16, 2004

Mr. R. Mark Bailey  
Asbestos TEM Laboratories, Inc.  
1409 Fifth Street, Suite C  
Berkeley, CA 94710

NVLAP Lab Code: 101891-0

Dear Mr. Bailey:

I am pleased to inform you that continuing accreditation for specific test methods in Bulk Asbestos Fiber Analysis (PLM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until June 30, 2005, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP logo in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Thomas R. Davis, Sr. Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140; Gaithersburg, MD 20899-2140; (301) 975-4016.

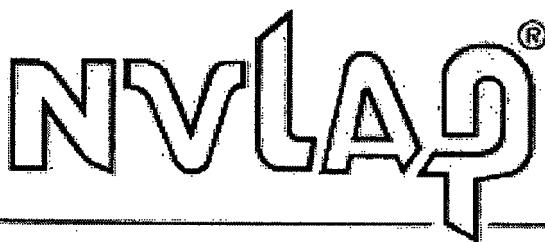
Sincerely,

Warren R. Merkel, Chief  
Laboratory Accreditation Program

Enclosure(s).

NIST

National Institute  
of Standards and Technology



National Voluntary  
Laboratory Accreditation Program

ISO/IEC 17025:1999  
ISO 9002:1994

## Scope of Accreditation



Page: 1 of 1

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101891-0

### ASBESTOS TEM LABORATORIES, INC.

1409 Fifth Street, Suite C

Berkeley, CA 94710

Mr. R. Mark Bailey

Phone: 510-528-0108 Fax: 510-528-0109

E-Mail: mark@asbestosstemlabs.com

URL: <http://www.asbestosstemlabs.com>

*NVLAP Code*

*Designation*

101891

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

June 30, 2005

Effective through

A handwritten signature in black ink, appearing to read "R. Mark Bailey".

For the National Institute of Standards and Technology

United States Department of Commerce  
National Institute of Standards and Technology



ISO/IEC 17025:1999  
ISO 9002:1994

Certificate of Accreditation



ASBESTOS TEM LABORATORIES, INC.  
BERKELEY, CA

is recognized by the National Voluntary Laboratory Accreditation Program  
for satisfactory compliance with criteria set forth in NIST Handbook 150:2001,  
all requirements of ISO/IEC 17025:1999, and relevant requirements of ISO 9002:1994.  
Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

June 30, 2005

Effective through

A handwritten signature in black ink, appearing to read "J. P. W." or "John P. W.".

For the National Institute of Standards and Technology  
NVLAP Lab Code: 101891-0



ASBESTOS TEM LABORATORIES, INC.

## Sample Preparation Log Sheet

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**NVLAP**  
CA DOHS ELAP

Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 1

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC		
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)					
											Initials and Date	FG1	FG2	FG3	FG4	
741-00019-001	CPS-CS01-100804	1	1	MW 10-15-04	--	6.0 g	287.4 g	MW 10-15-04	ML 10-15-04	1	61.4 g	59.0 g	72.0 g	61.5 g	MW 10-20-04	SAS 10-21-04
741-00019-002	CPS-S01-100804	1	1	DO 10-15-04	--	0.0 g	98.8 g	DO 10-15-04	ML 10-15-04	1	43.1 g	20.9 g	14.2 g	6.9 g	MW 10-20-04	SAS 10-21-04
741-00019-003	CPS-S02-100804	1	1	MW 10-15-04	--	3.0 g	196.5 g	MW 10-15-04	ML 10-15-04	1	45.6 g	43.1 g	38.8 g	45.4 g	MW 10-20-04	SAS 10-21-04
741-00019-004	CPS-S03-100804	1	1	PB 10-15-04	--	0.9 g	73.9 g	MW 10-15-04	ML 10-15-04	1	16.3 g	16.7 g	14.3 g	14.6 g	MW 10-20-04	SAS 10-21-04
741-00019-005	CPS-S04-100804	1	1	PB 10-15-04	--	2.5 g	233.5 g	MW 10-15-04	ML 10-15-04	1	60.2 g	40.7 g	52.5 g	53.0 g	DO 10-21-04	SAS 10-22-04
741-00019-006	CPS-S05-100804	1	1	PB 10-15-04	--	0.0 g	228.5 g	MW 10-15-04	ML 10-15-04	1	47.6 g	49.8 g	52.7 g	51.4 g	DO 10-21-04	SAS 10-22-04
741-00019-007	CPS-S06-100804	1	1	PB 10-15-04	--	0.7 g	171.7 g	MW 10-15-04	ML 10-15-04	1	36.0 g	36.2 g	38.6 g	39.8 g	DO 10-21-04	SAS 10-22-04
741-00019-008	CPS-S07-100804	1	1	PB 10-15-04	--	1.5 g	164.4 g	MW 10-15-04	ML 10-15-04	1	28.0 g	43.7 g	38.6 g	38.4 g	DO 10-21-04	SAS 10-22-04
741-00019-009	CPS-S101-100804	1	1	PB 10-15-04	--	1.0 g	143.5 g	MW 10-15-04	ML 10-15-04	1	32.0 g	27.9 g	31.6 g	32.1 g	DO 10-21-04	SAS 10-22-04
741-00019-010	NFB-CS01-100804	1	1	PB 10-15-04	--	2.7 g	449.4 g	MW 10-15-04	ML 10-15-04	1	101.1 g	109.3 g	93.8 g	96.5 g	DO 10-21-04	SAS 10-22-04
741-00019-011	NFB-CSS01-100804	1	1	PB 10-15-04	--	109.4 g	427.1 g	MW 10-15-04	ML 10-15-04	1	105.0 g	80.0 g	94.1 g	97.5 g	DO 10-21-04	SAS 10-22-04
741-00019-012	NFB-S01-100804	1	1	PB 10-15-04	--	0.6 g	215.6 g	MW 10-15-04	ML 10-15-04	1	60.0 g	39.6 g	27.9 g	40.1 g	DO 10-21-04	SAS 10-22-04
741-00019-013	NFB-S02-100804	1	1	PB 10-15-04	--	0.0 g	177.1 g	MW 10-15-04	ML 10-15-04	1	39.6 g	42.1 g	22.8 g	52.3 g	DO 10-21-04	SAS 10-22-04
741-00019-014	NFB-S03-100804	1	1	PB 10-15-04	--	1.1 g	284.5 g	MW 10-15-04	ML 10-15-04	1	67.2 g	66.6 g	62.9 g	62.1 g	DO 10-21-04	SAS 10-22-04
741-00019-015	NFB-S04-100804	1	1	PB 10-15-04	--	0.0 g	137.4 g	MW 10-15-04	ML 10-15-04	1	36.5 g	25.9 g	29.8 g	31.0 g	DO 10-21-04	SAS 10-22-04
741-00019-016	NFB-S05-100804	1	1	PB 10-15-04	--	0.0 g	305.0 g	MW 10-15-04	ML 10-15-04	1	77.9 g	56.8 g	69.2 g	68.4 g	DO 10-21-04	SAS 10-22-04
741-00019-017	NFB-S06-100804	1	1	PB 10-15-04	--	0.0 g	355.6 g	MW 10-15-04	ML 10-15-04	1	83.5 g	79.8 g	80.4 g	80.3 g	DO 10-21-04	SAS 10-22-04
741-00019-018	NFB-S07-100804	1	1	PB 10-15-04	--	0.0 g	313.7 g	MW 10-15-04	ML 10-15-04	1	71.4 g	73.9 g	72.5 g	70.9 g	DO 10-21-04	SAS 10-22-04
741-00019-019	NFB-S08-100804	1	1	PB 10-15-04	--	0.0 g	412.6 g	MW 10-15-04	ML 10-15-04	1	93.9 g	92.6 g	94.1 g	98.2 g	DO 10-21-04	SAS 10-22-04
741-00019-020	NFB-S09-100804	1	1	PB 10-15-04	--	0.0 g	298.4 g	MW 10-15-04	ML 10-15-04	1	55.5 g	71.7 g	73.6 g	72.9 g	DO 10-21-04	SAS 10-22-04
741-00019-215	LAB-DUP01-101104 Duplicate of NFB-S09-100804	1	1	--	PB 10-15-04	0.0 g	149.9 g	MW 10-15-04	ML 10-15-04	1	23.5 g	34.2 g	39.5 g	40.7 g	DO 10-21-04	SAS 10-22-04
741-00019-021	NFB-S10-100804	1	1	PB 10-15-04	--	1.7 g	123.4 g	MW 10-15-04	ML 10-15-04	1	32.9 g	22.5 g	27.9 g	29.9 g	DO 10-21-04	SAS 10-22-04
741-00019-022	NFB-S110-100804	1	1	PB 10-15-04	--	0.8 g	81.4 g	MW 10-15-04	ML 10-15-04	1	20.2 g	15.6 g	18.7 g	19.1 g	DO 10-21-04	SAS 10-22-04
741-00019-023	NFB-SS01-100804	1	1	PB 10-15-04	--	201.6 g	209.6 g	MW 10-15-04	ML 10-15-04	1	46.4 g	48.0 g	49.5 g	48.2 g	DO 10-21-04	SAS 10-22-04



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## Sample Preparation Log Sheet

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Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 2

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC		
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)					
				Initials and Date	Initials and Date	Fraction >1/4"	Fraction <1/4"				FG1	FG2	FG3	FG4	Initials and Date	
741-00019-024	NFB-SS02-100804	1	1	PB 10-15-04	--	33.1 g	330.1 g	MW 10-15-04	ML 10-15-04	1	79.3 g	76.7 g	72.6 g	71.9 g	DO 10-21-04	SAS 10-22-04
741-00019-025	NFB-SS03-100804	1	1	PB 10-15-04	--	117.5 g	389.8 g	MW 10-15-04	ML 10-15-04	1	80.4 g	79.1 g	103.5 g	92.3 g	DO 10-21-04	SAS 10-22-04
741-00019-026	NFB-SS04-100804	1	1	PB 10-15-04	--	15.8 g	335.4 g	MW 10-15-04	ML 10-15-04	1	80.7 g	74.6 g	74.0 g	78.2 g	DO 10-21-04	SAS 10-22-04
741-00019-027	NFB-SS05-100804	1	1	PB 10-15-04	--	33.5 g	138.5 g	MW 10-15-04	ML 10-15-04	1	34.1 g	29.5 g	31.1 g	31.8 g	DO 10-21-04	SAS 10-22-04
741-00019-028	NFB-SS06-100804	1	1	PB 10-15-04	--	55.0 g	251.7 g	MW 10-15-04	ML 10-15-04	1	58.9 g	60.1 g	56.8 g	55.9 g	DO 10-21-04	SAS 10-22-04
741-00019-029	NFB-SS07-100804	1	1	PB 10-15-04	--	15.2 g	148.1 g	MW 10-15-04	ML 10-15-04	1	33.4 g	35.5 g	33.4 g	33.1 g	DO 10-21-04	SAS 10-22-04
741-00019-030	NYB-CS01-100804	1	1	PB 10-15-04	--	0.8 g	419.0 g	MW 10-15-04	ML 10-15-04	1	84.6 g	102.7 g	91.8 g	104.2 g	DO 10-21-04	SAS 10-22-04
741-00019-031	NYB-CSS01-100804	1	1	DO 10-17-04	--	83.0 g	404.2 g	DO 10-17-04	ML 10-17-04	1	91.6 g	86.6 g	89.8 g	118.2 g	DV 10-21-04	SAS 10-22-04
741-00019-032	NYB-S01-100804	1	2	DO 10-17-04	--	0.0 g	287.9 g	DO 10-17-04	ML 10-17-04	1	67.7 g	66.8 g	74.7 g	64.3 g	DV 10-21-04	SAS 10-22-04
741-00019-033	NYB-S02-100804	1	2	DO 10-17-04	--	0.0 g	348.1 g	DO 10-17-04	ML 10-17-04	1	91.0 g	87.8 g	74.3 g	80.0 g	DV 10-21-04	SAS 10-22-04
741-00019-034	NYB-S03-100804	1	2	DO 10-17-04	--	0.0 g	260.7 g	DO 10-17-04	ML 10-17-04	1	64.1 g	63.0 g	57.4 g	62.2 g	DV 10-21-04	SAS 10-22-04
741-00019-035	NYB-S04-100804	1	2	DO 10-17-04	--	0.0 g	133.4 g	DO 10-17-04	ML 10-17-04	1	27.8 g	33.6 g	30.4 g	29.8 g	DV 10-21-04	SAS 10-22-04
741-00019-036	NYB-S05-100804	1	2	DO 10-17-04	--	0.0 g	408.4 g	DO 10-17-04	ML 10-17-04	1	105.6 g	94.1 g	105.0 g	81.9 g	DV 10-21-04	SAS 10-22-04
741-00019-037	NYB-S06-100804	1	2	DO 10-17-04	--	0.0 g	233.7 g	DO 10-17-04	ML 10-17-04	1	55.4 g	54.7 g	57.8 g	52.8 g	DV 10-21-04	SAS 10-22-04
741-00019-038	NYB-S07-100804	1	2	DO 10-17-04	--	0.0 g	230.1 g	DO 10-17-04	ML 10-17-04	1	52.6 g	58.9 g	51.0 g	52.3 g	DV 10-21-04	SAS 10-22-04
741-00019-039	NYB-S08-100804	1	2	DO 10-17-04	--	0.0 g	348.8 g	DO 10-17-04	ML 10-17-04	1	82.2 g	83.7 g	95.7 g	64.4 g	DV 10-21-04	SAS 10-22-04
741-00019-040	NYB-S09-100804	1	2	DO 10-17-04	--	0.0 g	331.9 g	DO 10-17-04	ML 10-17-04	1	77.8 g	78.4 g	77.8 g	80.8 g	DV 10-21-04	SAS 10-22-04
741-00019-217	LAB-DUP03-101104 Duplicate of NYB-S09-100804	1	2	--	DO 10-17-04	0.0 g	169.9 g	DO 10-17-04	ML 10-17-04	1	39.7 g	38.2 g	40.4 g	40.1 g	DV 10-21-04	SAS 10-22-04
741-00019-041	NYB-S10-100804	1	2	PB 10-16-04	--	10.7 g	295.6 g	DO 10-16-04	ML 10-16-04	1	67.3 g	68.5 g	64.6 g	76.5 g	DO 10-24-04	SAS 10-25-04
741-00019-042	NYB-S104-100804	1	2	DO 10-16-04	--	0.0 g	62.9 g	DO 10-16-04	ML 10-16-04	1	17.9 g	10.9 g	12.9 g	13.4 g	DO 10-24-04	SAS 10-25-04
741-00019-043	NYB-SS01-100804	1	2	DO 10-16-04	--	106.4 g	391.9 g	DO 10-16-04	ML 10-16-04	1	78.9 g	100.3 g	93.9 g	86.5 g	DO 10-24-04	SAS 10-25-04
741-00019-044	NYB-SS02-100804	1	2	DO 10-16-04	--	72.8 g	227.6 g	DO 10-16-04	ML 10-16-04	1	53.8 g	50.2 g	51.8 g	51.5 g	DO 10-24-04	SAS 10-25-04
741-00019-045	NYB-SS03-100804	1	2	DO 10-16-04	--	34.9 g	237.5 g	DO 10-16-04	ML 10-16-04	1	50.8 g	55.9 g	57.3 g	53.6 g	DO 10-24-04	SAS 10-25-04
741-00019-046	NYB-SS04-100804	1	2	DO 10-16-04	--	49.2 g	232.9 g	DO 10-16-04	ML 10-16-04	1	52.4 g	55.9 g	49.5 g	52.0 g	DO 10-24-04	SAS 10-25-04



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## Sample Preparation Log Sheet

Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 3

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC	
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)				
						Fraction >1/4"	Fraction <1/4"				FG1	FG2	FG3	FG4	
741-00019-047	NYB-SS05-100804	1	2	DO 10-16-04	--	157.9 g	273.2 g	DO 10-16-04	ML 10-16-04	1	57.9 g	66.6 g	63.2 g	62.0 g	DO 10-24-04 SAS 10-25-04
741-00019-048	NYB-SS06-100804	1	2	DO 10-16-04	--	19.8 g	141.9 g	DO 10-16-04	ML 10-16-04	1	38.2 g	23.6 g	32.2 g	32.3 g	DO 10-24-04 SAS 10-25-04
741-00019-049	NYB-SS07-100804	1	2	DO 10-16-04	--	47.1 g	165.0 g	DO 10-16-04	ML 10-16-04	1	29.7 g	42.8 g	36.7 g	38.2 g	DO 10-24-04 SAS 10-25-04
741-00019-050	NYB-SS104-100804	1	2	DO 10-16-04	--	25.6 g	177.6 g	DO 10-16-04	ML 10-16-04	1	42.2 g	35.1 g	40.6 g	41.1 g	DO 10-24-04 SAS 10-25-04
741-00019-051	NYT-CS01-100804	1	2	DO 10-16-04	--	37.1 g	143.2 g	DO 10-16-04	ML 10-16-04	1	40.8 g	23.2 g	33.4 g	31.7 g	DO 10-24-04 SAS 10-25-04
741-00019-052	NYT-CS02-100804	1	2	DO 10-16-04	--	36.4 g	381.9 g	DO 10-16-04	ML 10-16-04	1	89.6 g	88.1 g	86.8 g	86.5 g	DO 10-24-04 SAS 10-25-04
741-00019-053	NYT-CS101-100804	1	2	DO 10-16-04	--	15.1 g	112.7 g	DO 10-16-04	ML 10-16-04	1	23.3 g	28.0 g	24.3 g	23.5 g	DO 10-24-04 SAS 10-25-04
741-00019-054	NYT-S01-100804	1	2	DO 10-16-04	--	10.6 g	153.2 g	DO 10-16-04	ML 10-16-04	1	25.6 g	35.8 g	36.7 g	36.2 g	DO 10-24-04 SAS 10-25-04
741-00019-055	NYT-S02-100804	1	2	DO 10-16-04	--	11.7 g	262.4 g	DO 10-16-04	ML 10-16-04	1	55.2 g	67.3 g	57.2 g	59.3 g	DO 10-24-04 SAS 10-25-04
741-00019-056	NYT-S03-100804	1	2	DO 10-16-04	--	33.1 g	321.7 g	DO 10-16-04	ML 10-16-04	1	85.5 g	69.3 g	73.1 g	71.7 g	DO 10-24-04 SAS 10-25-04
741-00019-057	NYT-S04-100804	1	2	DO 10-16-04	--	11.6 g	184.9 g	DO 10-16-04	ML 10-16-04	1	49.4 g	38.8 g	44.3 g	44.1 g	DO 10-24-04 SAS 10-25-04
741-00019-058	NYT-S104-100804	1	2	DO 10-16-04	--	14.5 g	146.5 g	DO 10-16-04	ML 10-16-04	1	38.1 g	30.5 g	35.5 g	33.8 g	DO 10-24-04 SAS 10-25-04
741-00019-059	NYT-S1A2-100804	1	2	DO 10-16-04	--	22.1 g	165.1 g	DO 10-16-04	ML 10-16-04	1	46.7 g	30.1 g	39.1 g	37.2 g	DO 10-24-04 SAS 10-25-04
741-00019-060	NYT-S1E1-100804	1	2	DO 10-16-04	--	20.8 g	163.1 g	DO 10-16-04	ML 10-16-04	1	31.7 g	43.4 g	37.1 g	39.2 g	DO 10-24-04 SAS 10-25-04
741-00019-216	LAB-DUP02-101104 Duplicate of NYT-S1E1-100804	1	2	--	DO 10-16-04	18.9 g	81.5 g	DO 10-16-04	ML 10-16-04	1	20.1 g	21.1 g	17.7 g	16.4 g	DV 10-26-04 SAS 10-27-04
741-00019-061	NYT-S1G2-100804	1	2	DO 10-16-04	--	9.1 g	243.6 g	DO 10-16-04	ML 10-16-04	1	61.8 g	56.4 g	53.5 g	52.9 g	DO 10-25-04 SAS 10-26-04
741-00019-062	NYT-SA1-100804	1	2	DO 10-16-04	--	2.7 g	177.3 g	DO 10-16-04	ML 10-16-04	1	37.1 g	45.2 g	39.8 g	43.9 g	DO 10-25-04 SAS 10-26-04
741-00019-063	NYT-SA2-100804	1	2	DO 10-16-04	--	5.7 g	119.8 g	DO 10-16-04	ML 10-16-04	1	28.0 g	30.7 g	25.6 g	27.6 g	DO 10-25-04 SAS 10-26-04
741-00019-064	NYT-SA3-100804	1	2	DO 10-16-04	--	7.0 g	175.3 g	DO 10-16-04	ML 10-16-04	1	42.6 g	37.5 g	37.1 g	38.7 g	DO 10-25-04 SAS 10-26-04
741-00019-065	NYT-SB1-100804	1	2	DO 10-16-04	--	8.1 g	107.8 g	DO 10-16-04	ML 10-16-04	1	40.3 g	10.0 g	23.7 g	23.8 g	DO 10-25-04 SAS 10-26-04
741-00019-066	NYT-SB2-100804	1	2	DO 10-16-04	--	16.9 g	178.5 g	DO 10-16-04	ML 10-16-04	1	27.0 g	44.3 g	45.0 g	46.5 g	DO 10-25-04 SAS 10-26-04
741-00019-067	NYT-SB3-100804	1	2	DO 10-16-04	--	19.5 g	235.5 g	DO 10-16-04	ML 10-16-04	1	54.1 g	61.3 g	48.1 g	54.8 g	DO 10-25-04 SAS 10-26-04
741-00019-068	NYT-SC1-100804	1	2	DO 10-16-04	--	5.9 g	281.8 g	DO 10-16-04	ML 10-16-04	1	62.7 g	56.6 g	69.4 g	69.6 g	DO 10-25-04 SAS 10-26-04
741-00019-069	NYT-SC2-100804	1	2	DO 10-16-04	--	9.1 g	142.9 g	DO 10-16-04	ML 10-16-04	1	34.6 g	24.3 g	36.1 g	36.1 g	DO 10-25-04 SAS 10-26-04



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Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 4

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC	
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)				
						Initials and Date	Initials and Date				FG1	FG2	FG3	FG4	
741-00019-070	NYT-SC3-100804	1	2	DO 10-16-04	--	27.9 g	247.6 g	DO 10-16-04	ML 10-16-04	1	59.2 g	55.1 g	59.4 g	56.0 g	DO 10-25-04 SAS 10-26-04
741-00019-071	NYT-SD1-100804	1	2	DO 10-17-04	--	7.0 g	110.9 g	DO 10-17-04	ML 10-17-04	1	24.2 g	25.6 g	25.6 g	25.2 g	DV 10-21-04 SAS 10-22-04
741-00019-072	NYT-SD2-100804	1	2	DO 10-17-04	--	2.1 g	54.2 g	DO 10-17-04	ML 10-17-04	1	13.5 g	6.5 g	13.0 g	11.7 g	DV 10-21-04 SAS 10-22-04
741-00019-073	NYT-SD3-100804	1	2	DO 10-17-04	--	5.6 g	192.4 g	DO 10-17-04	ML 10-17-04	1	47.1 g	43.2 g	43.8 g	42.0 g	DV 10-21-04 SAS 10-22-04
741-00019-074	NYT-SE1-100804	1	2	DO 10-17-04	--	28.3 g	172.4 g	DO 10-17-04	ML 10-17-04	1	40.8 g	41.6 g	39.4 g	36.8 g	DV 10-21-04 SAS 10-22-04
741-00019-075	NYT-SE2-100804	1	2	DO 10-17-04	--	4.9 g	87.5 g	DO 10-17-04	ML 10-17-04	1	20.3 g	13.9 g	19.7 g	23.5 g	DV 10-21-04 SAS 10-22-04
741-00019-076	NYT-SE3-100804	1	2	DO 10-17-04	--	10.9 g	208.9 g	DO 10-17-04	ML 10-17-04	1	51.0 g	52.9 g	39.2 g	51.9 g	DV 10-21-04 SAS 10-22-04
741-00019-077	NYT-SF1-100804	1	2	DO 10-17-04	--	3.3 g	209.1 g	DO 10-17-04	ML 10-17-04	1	46.5 g	50.3 g	45.2 g	47.7 g	DV 10-22-04 SAS 10-25-04
741-00019-078	NYT-SF2-100804	1	2	DO 10-17-04	--	3.3 g	125.3 g	DO 10-17-04	ML 10-17-04	1	27.3 g	25.9 g	25.6 g	29.3 g	DV 10-22-04 SAS 10-25-04
741-00019-079	NYT-SF3-100804	1	2	DO 10-17-04	--	43.7 g	104.9 g	DO 10-17-04	ML 10-17-04	1	20.9 g	22.8 g	24.4 g	23.4 g	DV 10-22-04 SAS 10-25-04
741-00019-080	NYT-SG1-100804	1	2	DO 10-17-04	--	22.7 g	172.9 g	DO 10-17-04	ML 10-17-04	1	37.5 g	42.8 g	40.1 g	38.8 g	DV 10-22-04 SAS 10-25-04
741-00019-218	LAB-DUP04-101104 Duplicate of NYT-SG1-100804	1	2	--	DO 10-17-04	8.8 g	53.7 g	DO 10-17-04	ML 10-17-04	1	11.8 g	11.6 g	12.2 g	10.1 g	DV 10-22-04 SAS 10-25-04
741-00019-081	NYT-SG2-100804	1	2	DO 10-17-04	--	6.3 g	143.0 g	DO 10-17-04	ML 10-17-04	1	32.9 g	32.8 g	35.6 g	30.9 g	DV 10-22-04 SAS 10-25-04
741-00019-082	NYT-SG3-100804	1	2	DO 10-17-04	--	18.5 g	125.7 g	DO 10-17-04	ML 10-17-04	1	26.5 g	30.7 g	31.2 g	27.9 g	DV 10-22-04 SAS 10-25-04
741-00019-083	NYT-SH1-100804	1	2	DO 10-17-04	--	15.9 g	251.5 g	DO 10-17-04	ML 10-17-04	1	56.0 g	56.8 g	63.3 g	65.6 g	DV 10-22-04 SAS 10-25-04
741-00019-084	NYT-SH2-100804	1	2	DO 10-17-04	--	0.0 g	227.2 g	DO 10-17-04	ML 10-17-04	1	53.7 g	59.7 g	52.3 g	52.2 g	DV 10-22-04 SAS 10-25-04
741-00019-085	NYT-SH3-100804	1	2	DO 10-17-04	--	10.7 g	166.6 g	DO 10-17-04	ML 10-17-04	1	40.2 g	40.6 g	38.5 g	39.3 g	DV 10-22-04 SAS 10-25-04
741-00019-086	NYT-SI1-100804	1	2	DO 10-17-04	--	84.0 g	398.9 g	DO 10-17-04	ML 10-17-04	1	103.3 g	106.6 g	77.9 g	93.2 g	DV 10-22-04 SAS 10-25-04
741-00019-087	NYT-SI2-100804	1	2	DO 10-17-04	--	15.2 g	180.2 g	DO 10-17-04	ML 10-17-04	1	40.6 g	44.1 g	43.1 g	43.4 g	DV 10-22-04 SAS 10-25-04
741-00019-088	NYT-SI3-100804	1	2	DO 10-17-04	--	20.1 g	284.5 g	DO 10-17-04	ML 10-17-04	1	66.6 g	63.7 g	75.7 g	69.3 g	DO 10-24-04 SAS 10-25-04
741-00019-089	NYT-SJ1-100804	1	2	DO 10-17-04	--	13.1 g	224.5 g	DO 10-17-04	ML 10-17-04	1	44.8 g	58.6 g	57.9 g	55.3 g	DO 10-24-04 SAS 10-25-04
741-00019-090	NYT-SJ2-100804	1	2	DO 10-17-04	--	9.3 g	285.3 g	DO 10-17-04	ML 10-17-04	1	62.9 g	68.4 g	68.1 g	73.4 g	DO 10-24-04 SAS 10-25-04
741-00019-091	NYT-SJ3-100804	1	2	PB 10-18-04	--	59.4 g	286.9 g	DV 10-18-04	ML 10-18-04	1	67.4 g	64.2 g	63.4 g	64.7 g	MW 10-25-04 SAS 10-26-04
741-00019-092	SFB-CS01-100804	1	2	PB 10-18-04	--	0.0 g	221.3 g	DV 10-18-04	ML 10-18-04	1	48.7 g	52.1 g	56.3 g	50.1 g	MW 10-25-04 SAS 10-26-04



ASBESTOS TEM LABORATORIES, INC.

## Sample Preparation Log Sheet

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Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 5

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC	
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)				
						Fraction >1/4"	Fraction <1/4"				FG1	FG2	FG3	FG4	
741-00019-093	SFB-CS101-100804	1	3	PB 10-18-04	--	36.0 g	461.8 g	DV 10-18-04	ML 10-18-04	1	108.1 g	95.8 g	111.6 g	104.5 g	MW 10-25-04 SAS 10-26-04
741-00019-094	SFB-CSS01-100804	1	3	PB 10-18-04	--	0.0 g	206.3 g	DV 10-18-04	ML 10-18-04	1	47.3 g	48.2 g	50.7 g	46.4 g	MW 10-25-04 SAS 10-26-04
741-00019-095	SFB-S01-100804	1	3	PB 10-18-04	--	0.0 g	338.3 g	DV 10-18-04	ML 10-18-04	1	65.8 g	78.2 g	95.3 g	76.6 g	MW 10-25-04 SAS 10-26-04
741-00019-096	SFB-S02-100804	1	3	PB 10-18-04	--	0.0 g	333.5 g	DV 10-18-04	ML 10-18-04	1	76.6 g	92.0 g	75.5 g	66.4 g	MW 10-25-04 SAS 10-26-04
741-00019-097	SFB-S03-100804	1	3	PB 10-18-04	--	0.0 g	371.2 g	DV 10-18-04	ML 10-18-04	1	90.7 g	82.6 g	92.9 g	82.2 g	MW 10-25-04 SAS 10-26-04
741-00019-098	SFB-S04-100804	1	3	PB 10-18-04	--	1.1 g	242.9 g	DV 10-18-04	ML 10-18-04	1	61.4 g	57.4 g	59.2 g	50.5 g	MW 10-25-04 SAS 10-26-04
741-00019-099	SFB-S05-100804	1	3	PB 10-18-04	--	0.0 g	189.4 g	DV 10-18-04	ML 10-18-04	1	43.5 g	46.3 g	47.8 g	39.0 g	MW 10-25-04 SAS 10-26-04
741-00019-100	SFB-S06-100804	1	3	PB 10-18-04	--	0.0 g	211.2 g	DV 10-18-04	ML 10-18-04	1	68.9 g	31.7 g	44.5 g	50.8 g	MW 10-25-04 SAS 10-26-04
741-00019-219	LAB-DUP05-101104 Duplicate of SFB-S06-100804	1	3	--	PB 10-18-04	0.0 g	99.1 g	DV 10-18-04	ML 10-18-04	1	22.8 g	20.7 g	23.6 g	24.2 g	MW 10-25-04 SAS 10-26-04
741-00019-101	SFB-S07-100804	1	3	PB 10-18-04	--	0.6 g	264.4 g	DV 10-18-04	ML 10-18-04	1	56.4 g	63.4 g	70.0 g	61.1 g	MW 10-25-04 SAS 10-26-04
741-00019-102	SFB-S08-100804	1	3	PB 10-18-04	--	1.0 g	486.3 g	DV 10-18-04	ML 10-18-04	1	108.4 g	112.3 g	126.7 g	104.5 g	MW 10-25-04 SAS 10-26-04
741-00019-103	SFB-S09-100804	1	3	PB 10-18-04	--	0.0 g	389.6 g	DV 10-18-04	ML 10-18-04	1	87.6 g	87.8 g	89.6 g	96.6 g	DV 10-25-04 SAS 10-26-04
741-00019-104	SFB-S10-100804	1	3	PB 10-18-04	--	6.9 g	436.5 g	DV 10-18-04	ML 10-18-04	1	118.2 g	99.8 g	99.5 g	91.9 g	DV 10-25-04 SAS 10-26-04
741-00019-105	SFB-S107-100804	1	3	PB 10-18-04	--	0.0 g	413.8 g	DV 10-18-04	ML 10-18-04	1	97.6 g	102.3 g	92.8 g	97.1 g	DV 10-25-04 SAS 10-26-04
741-00019-106	SFB-SS01-100804	1	3	PB 10-18-04	--	95.4 g	440.8 g	DV 10-18-04	ML 10-18-04	1	101.6 g	108.0 g	102.9 g	101.2 g	DV 10-25-04 SAS 10-26-04
741-00019-107	SFB-SS02-100804	1	3	PB 10-18-04	--	123.2 g	580.4 g	DV 10-18-04	ML 10-18-04	1	126.7 g	117.8 g	149.2 g	144.5 g	DV 10-25-04 SAS 10-26-04
741-00019-108	SFB-SS03-100804	1	3	PB 10-18-04	--	89.3 g	408.0 g	DV 10-18-04	ML 10-18-04	1	89.5 g	91.9 g	93.4 g	107.2 g	DV 10-25-04 SAS 10-26-04
741-00019-109	SFB-SS04-100804	1	3	PB 10-18-04	--	64.6 g	345.6 g	DV 10-18-04	ML 10-18-04	1	88.4 g	82.6 g	71.3 g	76.6 g	DV 10-25-04 SAS 10-26-04
741-00019-110	SFB-SS05-100804	1	3	PB 10-18-04	--	43.2 g	500.8 g	DV 10-18-04	ML 10-18-04	1	99.1 g	126.1 g	114.0 g	129.2 g	DV 10-25-04 SAS 10-26-04
741-00019-111	SFB-SS06-100804	1	3	PB 10-18-04	--	111.0 g	446.6 g	DV 10-18-04	ML 10-20-04	1	97.4 g	118.1 g	88.3 g	112.7 g	DV 10-25-04 SAS 10-26-04
741-00019-112	SFB-SS07-100804	1	3	PB 10-18-04	--	37.7 g	226.0 g	DV 10-18-04	ML 10-20-04	1	50.5 g	56.7 g	48.3 g	55.5 g	DV 10-25-04 SAS 10-26-04
741-00019-113	SFB-SS107-100804	1	3	PB 10-18-04	--	151.5 g	634.1 g	DV 10-18-04	ML 10-20-04	1	147.5 g	143.4 g	140.7 g	153.7 g	DV 10-25-04 SAS 10-26-04
741-00019-114	DEM-CS01-100904	1	3	PB 10-18-04	--	54.4 g	276.8 g	DV 10-18-04	ML 10-20-04	1	65.7 g	69.3 g	53.8 g	68.7 g	DV 10-25-04 SAS 10-26-04
741-00019-115	DEM-S01-100904	1	3	PB 10-18-04	--	0.3 g	342.8 g	DV 10-18-04	ML 10-20-04	1	79.1 g	77.7 g	79.3 g	80.3 g	DV 10-25-04 SAS 10-26-04



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## Sample Preparation Log Sheet

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Sheet No. 6

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC	
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)				
				Initials and Date	Initials and Date	Fraction >1/4"	Fraction <1/4"				FG1	FG2	FG3	FG4	
741-00019-116	DEM-S02-100904	1	3	PB 10-18-04	--	14.6 g	642.4 g	DV 10-18-04	ML 10-20-04	1	142.6 g	153.7 g	142.3 g	153.9 g	DV 10-25-04 SAS 10-26-04
741-00019-117	DEM-S03-100904	1	3	PB 10-18-04	--	66.9 g	357.8 g	DV 10-18-04	ML 10-20-04	1	79.9 g	85.4 g	84.7 g	80.5 g	DV 10-25-04 SAS 10-26-04
741-00019-118	DEM-S04-100904	1	3	PB 10-18-04	--	56.7 g	303.3 g	DV 10-18-04	ML 10-20-04	1	66.5 g	71.6 g	74.3 g	62.9 g	DV 10-25-04 SAS 10-26-04
741-00019-119	DEM-S05-100904	1	3	PB 10-18-04	--	43.4 g	388.3 g	DV 10-18-04	ML 10-20-04	1	83.4 g	87.4 g	95.2 g	95.5 g	DV 10-25-04 SAS 10-26-04
741-00019-120	DEM-S06-100904	1	3	PB 10-18-04	--	56.0 g	231.1 g	DV 10-18-04	ML 10-20-04	1	48.4 g	54.2 g	58.3 g	51.8 g	DV 10-25-04 SAS 10-26-04
741-00019-221	LAB-DUP07-101104 Duplicate of DEM-S06-100904	1	3	--	PB 10-18-04	24.0 g	102.9 g	DV 10-18-04	ML 10-20-04	1	23.6 g	23.1 g	24.6 g	23.6 g	DV 10-25-04 SAS 10-26-04
741-00019-121	DEM-S07-100904	1	3	DO 10-19-04	--	39.7 g	285.7 g	DO 10-19-04	ML 10-20-04	1	86.4 g	67.7 g	57.2 g	56.3 g	DO 10-26-04 SAS 10-27-04
741-00019-122	DEM-S08-100904	1	3	DO 10-19-04	--	76.3 g	275.4 g	DO 10-19-04	ML 10-20-04	1	62.8 g	59.9 g	62.9 g	71.6 g	DO 10-26-04 SAS 10-27-04
741-00019-123	DEM-S09-100904	1	3	DO 10-19-04	--	31.6 g	163.5 g	DO 10-19-04	ML 10-20-04	1	34.5 g	39.7 g	38.5 g	39.1 g	DO 10-26-04 SAS 10-27-04
741-00019-124	DEM-S10-100904	1	3	DO 10-19-04	--	70.3 g	240.4 g	DO 10-19-04	ML 10-20-04	1	66.7 g	49.5 g	52.5 g	53.9 g	DO 10-26-04 SAS 10-27-04
741-00019-125	DEM-S106-100904	1	3	DO 10-19-04	--	58.2 g	290.4 g	DO 10-19-04	ML 10-20-04	1	57.0 g	74.0 g	68.8 g	71.4 g	DO 10-26-04 SAS 10-27-04
741-00019-126	DEM-S11-100904	1	3	DO 10-19-04	--	89.0 g	149.0 g	DO 10-19-04	ML 10-20-04	1	28.6 g	36.5 g	37.1 g	36.7 g	DO 10-26-04 SAS 10-27-04
741-00019-127	DEM-S12-100904	1	3	DO 10-19-04	--	25.9 g	240.2 g	DO 10-19-04	ML 10-20-04	1	60.0 g	49.2 g	54.6 g	58.6 g	DO 10-26-04 SAS 10-27-04
741-00019-128	DEM-S13-100904	1	3	DO 10-19-04	--	25.3 g	301.7 g	DO 10-19-04	ML 10-20-04	1	65.4 g	74.9 g	69.8 g	73.2 g	DO 10-26-04 SAS 10-27-04
741-00019-129	RHS-CS01-100904	1	3	DO 10-19-04	--	30.3 g	293.9 g	DO 10-19-04	ML 10-20-04	1	76.1 g	45.5 g	68.6 g	79.0 g	DO 10-26-04 SAS 10-27-04
741-00019-130	RHS-S01-100904	1	3	DO 10-19-04	--	2.0 g	84.0 g	DO 10-19-04	ML 10-20-04	1	19.2 g	16.0 g	19.7 g	19.7 g	DO 10-26-04 SAS 10-27-04
741-00019-131	RHS-S02-100904	1	3	DO 10-19-04	--	4.2 g	254.2 g	DO 10-19-04	ML 10-21-04	1	53.4 g	59.5 g	62.6 g	64.1 g	DO 10-26-04 SAS 10-27-04
741-00019-132	RHS-S03-100904	1	3	DO 10-19-04	--	5.4 g	76.3 g	DO 10-19-04	ML 10-21-04	1	20.0 g	12.9 g	18.2 g	20.4 g	DO 10-26-04 SAS 10-27-04
741-00019-133	RHS-S04-100904	1	3	DO 10-19-04	--	9.1 g	147.5 g	DO 10-19-04	ML 10-21-04	1	32.3 g	39.5 g	31.6 g	32.1 g	DO 10-26-04 SAS 10-27-04
741-00019-134	RHS-S05-100904	1	3	DO 10-19-04	--	12.2 g	86.2 g	DO 10-19-04	ML 10-21-04	1	13.5 g	21.3 g	22.3 g	24.8 g	DO 10-26-04 SAS 10-27-04
741-00019-135	RHS-S06-100904	1	3	DO 10-19-04	--	6.8 g	82.2 g	DO 10-19-04	ML 10-21-04	1	19.3 g	18.1 g	18.1 g	19.4 g	DO 10-26-04 SAS 10-27-04
741-00019-136	RHS-S07-100904	1	3	DO 10-19-04	--	3.0 g	78.1 g	DO 10-19-04	ML 10-21-04	1	12.3 g	21.7 g	17.3 g	17.7 g	DO 10-26-04 SAS 10-27-04
741-00019-137	RHS-S08-100904	1	3	DO 10-19-04	--	15.6 g	104.4 g	DO 10-19-04	ML 10-21-04	1	25.1 g	21.5 g	24.2 g	24.4 g	DO 10-26-04 SAS 10-27-04
741-00019-138	RHS-S106-100904	1	3	DO 10-19-04	--	3.1 g	32.7 g	DO 10-19-04	ML 10-21-04	1	4.7 g	8.9 g	7.7 g	7.7 g	DO 10-26-04 SAS 10-27-04



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## Sample Preparation Log Sheet

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Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 7

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC		
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)			Initials and Date	Initial and Date	
						Initials and Date	Initials and Date				FG1	FG2	FG3	FG4		
741-00019-139	SVB-CS01-100904	1	3	DO 10-19-04	--	4.8 g	223.7 g	DO 10-19-04	ML 10-21-04	1	50.1 g	50.6 g	55.2 g	56.4 g	DO 10-26-04	SAS 10-27-04
741-00019-140	SVB-S01-100904	1	3	DO 10-19-04	--	1.7 g	239.5 g	DO 10-19-04	ML 10-21-04	1	64.5 g	51.6 g	52.1 g	58.6 g	DO 10-26-04	SAS 10-27-04
741-00019-222	LAB-DUP08-101104 Duplicate of SVB-S01-100904	1	3	--	DO 10-19-04	0.0 g	133.1 g	DO 10-19-04	ML 10-18-04	1	33.0 g	30.4 g	31.8 g	26.1 g	DV 10-26-04	SAS 10-27-04
741-00019-141	SVB-S02-100904	1	3	DO 10-19-04	--	0.0 g	218.7 g	DO 10-19-04	ML 10-21-04	1	50.6 g	54.0 g	53.8 g	45.6 g	DV 10-26-04	SAS 10-27-04
741-00019-142	SVB-S03-100904	1	3	DO 10-19-04	--	0.0 g	246.4 g	DO 10-19-04	ML 10-21-04	1	55.5 g	57.8 g	51.6 g	64.1 g	DV 10-26-04	SAS 10-27-04
741-00019-143	SVB-S04-100904	1	3	DO 10-19-04	--	0.0 g	312.2 g	DO 10-19-04	ML 10-21-04	1	76.3 g	73.1 g	78.1 g	68.1 g	DV 10-26-04	SAS 10-27-04
741-00019-144	SVB-S05-100904	1	3	DO 10-19-04	--	0.0 g	373.9 g	DO 10-19-04	ML 10-21-04	1	82.2 g	99.7 g	82.6 g	83.0 g	DV 10-26-04	SAS 10-27-04
741-00019-145	SVB-S06-100904	1	3	DO 10-19-04	--	4.6 g	176.5 g	DO 10-19-04	ML 10-21-04	1	39.0 g	39.4 g	34.9 g	46.9 g	DV 10-26-04	SAS 10-27-04
741-00019-146	SVB-S07-100904	1	3	DO 10-19-04	--	1.8 g	310.3 g	DO 10-19-04	ML 10-21-04	1	73.5 g	62.1 g	77.1 g	74.6 g	DV 10-26-04	SAS 10-27-04
741-00019-147	SVB-S08-100904	1	3	DO 10-19-04	--	1.0 g	282.9 g	DO 10-19-04	ML 10-21-04	1	65.8 g	67.8 g	69.7 g	65.6 g	DV 10-26-04	SAS 10-27-04
741-00019-148	SVB-S09-100904	1	3	DO 10-19-04	--	0.0 g	370.5 g	DO 10-19-04	ML 10-21-04	1	91.4 g	92.1 g	73.3 g	93.8 g	DV 10-26-04	SAS 10-27-04
741-00019-149	SVB-S10-100904	1	3	DO 10-19-04	--	0.0 g	432.3 g	DO 10-19-04	ML 10-21-04	1	102.2 g	102.2 g	101.7 g	105.8 g	DV 10-26-04	SAS 10-27-04
741-00019-150	SVB-S106-100904	1	3	DO 10-19-04	--	5.7 g	154.1 g	DO 10-19-04	ML 10-21-04	1	35.7 g	39.2 g	34.9 g	34.8 g	DV 10-26-04	SAS 10-27-04
741-00019-151	JSB-CS01-101004	1	4	PB 10-20-04	--	21.2 g	326.7 g	DV 10-20-04	ML 10-22-04	1	75.0 g	73.2 g	75.3 g	78.7 g	DV 10-27-04	SAS 10-28-04
741-00019-152	JSB-S01-101004	1	4	PB 10-20-04	--	24.3 g	131.4 g	DV 10-20-04	ML 10-22-04	1	27.6 g	31.3 g	28.0 g	30.8 g	DV 10-27-04	SAS 10-28-04
741-00019-153	JSB-S02-101004	1	4	PB 10-20-04	--	2.7 g	292.1 g	DV 10-20-04	ML 10-22-04	1	66.7 g	61.4 g	66.3 g	74.6 g	DV 10-27-04	SAS 10-28-04
741-00019-154	JSB-S03-101004	1	4	PB 10-20-04	--	54.4 g	198.4 g	DV 10-20-04	ML 10-22-04	1	41.3 g	49.1 g	46.0 g	45.7 g	DV 10-27-04	SAS 10-28-04
741-00019-155	JSB-S04-101004	1	4	PB 10-20-04	--	11.9 g	345.6 g	DV 10-20-04	ML 10-22-04	1	70.3 g	66.6 g	82.2 g	93.3 g	DV 10-27-04	SAS 10-28-04
741-00019-156	JSB-S05-101004	1	4	PB 10-20-04	--	9.6 g	378.3 g	DV 10-20-04	ML 10-22-04	1	85.0 g	82.7 g	86.4 g	81.6 g	DV 10-27-04	SAS 10-28-04
741-00019-157	JSB-S06-101004	1	4	PB 10-20-04	--	19.0 g	308.5 g	DV 10-20-04	ML 10-22-04	1	71.2 g	74.5 g	66.3 g	70.8 g	DV 10-27-04	SAS 10-28-04
741-00019-158	JSB-S07-101004	1	4	PB 10-20-04	--	37.2 g	343.8 g	DV 10-20-04	ML 10-22-04	1	77.6 g	74.8 g	74.7 g	87.9 g	DV 10-27-04	SAS 10-28-04
741-00019-159	JSB-S101-101004	1	4	PB 10-20-04	--	16.7 g	176.7 g	DV 10-20-04	ML 10-22-04	1	44.6 g	41.0 g	36.4 g	41.8 g	DV 10-27-04	SAS 10-28-04
741-00019-160	JSG-CS01-101004	1	4	PB 10-20-04	--	47.2 g	285.9 g	DV 10-20-04	ML 10-22-04	1	54.7 g	61.8 g	71.2 g	68.4 g	DV 10-27-04	SAS 10-28-04



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## Sample Preparation Log Sheet

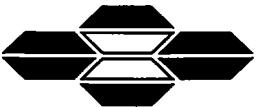
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CA DOHS ELAP

Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 8

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC	
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)			Initials and Date	
						Initials and Date	Initials and Date				FG1	FG2	FG3	FG4	
741-00019-223	LAB-DUP09-101104 Duplicate of JSG-CS01-101004	1	4	--	PB 10-20-04	20.5 g	171.5 g	DV 10-20-04	ML 10-22-04	1	38.7 g	41.2 g	46.0 g	32.7 g	DV 10-27-04 SAS 10-28-04
741-00019-161	JSG-S01-101004	1	4	PB 10-20-04	--	11.1 g	239.6 g	DV 10-20-04	ML 10-22-04	1	56.8 g	55.6 g	61.7 g	52.6 g	DV 10-26-04 SAS 10-27-04
741-00019-162	JSG-S02-101004	1	4	PB 10-20-04	--	74.2 g	221.3 g	DV 10-20-04	ML 10-22-04	1	54.2 g	51.5 g	47.2 g	52.1 g	DV 10-26-04 SAS 10-27-04
741-00019-163	JSG-S03-101004	1	4	PB 10-20-04	--	26.2 g	197.8 g	DV 10-20-04	ML 10-22-04	1	47.1 g	46.1 g	49.1 g	42.6 g	DV 10-26-04 SAS 10-27-04
741-00019-164	JSG-S04-101004	1	4	PB 10-20-04	--	58.8 g	220.0 g	DV 10-20-04	ML 10-22-04	1	52.7 g	50.6 g	56.1 g	48.3 g	DV 10-26-04 SAS 10-27-04
741-00019-165	JSG-S05-101004	1	4	PB 10-20-04	--	0.0 g	372.9 g	DV 10-20-04	ML 10-22-04	1	77.2 g	81.8 g	99.2 g	91.8 g	DV 10-26-04 SAS 10-27-04
741-00019-166	JSG-S06-101004	1	4	PB 10-20-04	--	8.0 g	160.5 g	DV 10-20-04	ML 10-22-04	1	40.0 g	37.1 g	34.2 g	39.4 g	DV 10-26-04 SAS 10-27-04
741-00019-167	JSG-S07-101004	1	4	PB 10-20-04	--	64.2 g	184.1 g	DV 10-20-04	ML 10-22-04	1	44.0 g	41.6 g	38.3 g	53.4 g	DV 10-26-04 SAS 10-27-04
741-00019-168	JSG-S08-101004	1	4	PB 10-20-04	--	6.0 g	164.8 g	DV 10-20-04	ML 10-22-04	1	41.8 g	42.8 g	40.1 g	33.1 g	DV 10-26-04 SAS 10-27-04
741-00019-169	JSG-S09-101004	1	4	PB 10-20-04	--	4.1 g	204.0 g	MW 10-20-04	ML 10-22-04	1	49.4 g	46.5 g	48.3 g	49.8 g	DV 10-26-04 SAS 10-27-04
741-00019-170	JSG-S107-101004	1	4	PB 10-20-04	--	95.5 g	219.4 g	MW 10-20-04	ML 10-22-04	1	57.7 g	43.8 g	59.1 g	45.5 g	DV 10-26-04 SAS 10-27-04
741-00019-171	JSS-CS01-101004	1	4	PB 10-20-04	--	1.9 g	278.2 g	MW 10-20-04	ML 10-23-04	1	59.7 g	61.7 g	69.1 g	69.1 g	DV 10-26-04 SAS 10-27-04
741-00019-172	JSS-S01-101004	1	4	PB 10-20-04	--	0.8 g	268.1 g	MW 10-20-04	ML 10-23-04	1	69.1 g	57.6 g	59.7 g	59.6 g	DV 10-26-04 SAS 10-27-04
741-00019-173	JSS-S02-101004	1	4	PB 10-20-04	--	0.0 g	210.6 g	MW 10-20-04	ML 10-23-04	1	51.6 g	47.4 g	45.7 g	47.3 g	DV 10-26-04 SAS 10-27-04
741-00019-174	JSS-S03-101004	1	4	PB 10-20-04	--	0.0 g	224.3 g	MW 10-20-04	ML 10-23-04	1	50.8 g	61.4 g	52.2 g	45.3 g	DV 10-26-04 SAS 10-27-04
741-00019-175	JSS-S04-101004	1	4	PB 10-20-04	--	0.0 g	114.6 g	MW 10-20-04	ML 10-23-04	1	27.4 g	31.3 g	27.8 g	20.8 g	DV 10-26-04 SAS 10-27-04
741-00019-176	JSS-S05-101004	1	4	PB 10-20-04	--	0.0 g	186.6 g	MW 10-20-04	ML 10-23-04	1	43.8 g	41.2 g	41.1 g	41.8 g	DV 10-27-04 SAS 10-28-04
741-00019-177	JSS-S06-101004	1	4	PB 10-20-04	--	3.1 g	221.8 g	MW 10-20-04	ML 10-23-04	1	49.5 g	56.6 g	50.4 g	46.2 g	DV 10-27-04 SAS 10-28-04
741-00019-178	JSS-S07-101004	1	4	PB 10-20-04	--	0.2 g	251.0 g	MW 10-20-04	ML 10-23-04	1	57.0 g	57.0 g	56.5 g	56.5 g	DV 10-27-04 SAS 10-28-04
741-00019-179	DPA-CS01-101104	1	4	PB 10-20-04	--	36.5 g	262.7 g	MW 10-20-04	ML 10-23-04	1	51.1 g	51.4 g	66.8 g	61.8 g	DV 10-27-04 SAS 10-28-04
741-00019-180	DPA-S01-101104	1	4	PB 10-20-04	--	61.4 g	267.0 g	MW 10-20-04	ML 10-23-04	1	59.4 g	58.3 g	61.4 g	60.2 g	DV 10-27-04 SAS 10-28-04
741-00019-224	LAB-DUP10-101104 Duplicate of DPA-S01-101104	1	4	--	PB 10-20-04	38.8 g	126.3 g	MW 10-20-04	ML 10-23-04	1	26.9 g	27.2 g	29.0 g	28.7 g	DV 10-27-04 SAS 10-28-04
741-00019-181	DPA-S1A3-101104	1	4	PB 10-20-04	--	39.0 g	229.0 g	MW 10-20-04	ML 10-23-04	1	49.9 g	53.7 g	51.2 g	48.3 g	DV 10-27-04 SAS 10-28-04



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## Sample Preparation Log Sheet

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Prep Batch ID: 1

(TECHNICAL STANDARD OPERATION PROCEDURE, SOIL SAMPLE PREPARATION – Revision Number 4)

Sheet No. 9

Index Identification Name	Notes: Original Sample Identification or other descriptor as appropriate.	Batch Number	Dry Batch ID	Archive Sample Splitting	Duplicate Sample Splitting	Sieving		Sample Grinding		Sample Splitting				QC	
						Sample Mass (g)	Sample Mass (g)	Initials and Date	Initials and Date	Grinder #	Sample Mass (g)			Initials and Date	
						Initials and Date	Initials and Date				FG1	FG2	FG3	FG4	
741-00019-182	DPA-SA1-101104	1	4	PB 10-20-04	--	74.6 g	336.7 g	MW 10-20-04	ML 10-23-04	1	68.3 g	69.1 g	67.3 g	80.3 g	DV 10-27-04 SAS 10-28-04
741-00019-183	DPA-SA2-101104	1	4	PB 10-20-04	--	24.2 g	379.3 g	MW 10-20-04	ML 10-23-04	1	84.4 g	89.0 g	81.9 g	86.8 g	DV 10-27-04 SAS 10-28-04
741-00019-184	DPA-SA3-101104	1	4	PB 10-20-04	--	23.1 g	201.0 g	MW 10-20-04	ML 10-23-04	1	40.1 g	43.7 g	43.3 g	47.8 g	DV 10-27-04 SAS 10-28-04
741-00019-220	LAB-DUP06-101104 Duplicate of DPA-SA3-101104	1	4	--	PB 10-20-04	22.7 g	77.0 g	MW 10-20-04	ML 10-23-04	1	17.2 g	16.9 g	12.7 g	18.9 g	DV 10-27-04 SAS 10-28-04
741-00019-185	LAB-BL01-101104 (Drying blank)	--	1	--	--	0.0 g	100.5 g	PB 10-15-04	ML 10-15-04	1	24.6 g	19.2 g	22.6 g	22.5 g	MW 10-20-04 SAS 10-21-04
741-00019-186	LAB-BL02-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-16-04	1	40.2 g	40.5 g	37.1 g	42.4 g	DV 10-26-04 SAS 10-27-04
741-00019-187	LAB-BL03-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-16-04	1	35.5 g	40.5 g	37.5 g	41.5 g	DV 10-26-04 SAS 10-27-04
741-00019-188	LAB-BL04-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-17-04	1	43.4 g	45.2 g	32.5 g	34.9 g	MW 10-25-04 SAS 10-26-04
741-00019-189	LAB-BL05-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-20-04	1	46.1 g	32.2 g	29.3 g	50.7 g	DV 10-27-04 SAS 10-28-04
741-00019-190	LAB-BL06-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-18-04	1	38.9 g	38.7 g	34.5 g	45.8 g	DV 10-25-04 SAS 10-26-04
741-00019-191	LAB-BL07-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-15-04	1	61.8 g	17.4 g	40.8 g	40.8 g	DO 10-21-04 SAS 10-22-04
741-00019-192	LAB-BL08-101104 (Drying blank)	--	2	--	--	0.0 g	85.4 g	DO 10-17-04	ML 10-17-04	1	16.8 g	21.0 g	21.3 g	20.4 g	MW 10-25-04 SAS 10-26-04
741-00019-193	LAB-BL09-101104 (Drying blank)	--	2	--	--	0.0 g	99.6 g	DO 10-17-04	ML 10-17-04	1	24.0 g	21.6 g	24.6 g	22.4 g	MW 10-25-04 SAS 10-26-04
741-00019-194	LAB-BL10-101104 (Drying blank)	--	3	--	--	0.0 g	97.6 g	DV 10-18-04	ML 10-18-04	1	21.3 g	24.4 g	23.4 g	21.2 g	MW 10-25-04 SAS 10-26-04
741-00019-195	LAB-BL11-101104 (Drying blank)	--	3	--	--	0.0 g	92.3 g	DV 10-18-04	ML 10-18-04	1	25.4 g	21.8 g	18.5 g	19.5 g	MW 10-25-04 SAS 10-26-04
741-00019-196	LAB-BL12-101104 (Drying blank)	--	4	--	--	0.0 g	84.7 g	DV 10-20-04	ML 10-22-04	1	14.4 g	19.2 g	21.9 g	23.3 g	DV 10-27-04 SAS 10-28-04
741-00019-197	LAB-BL13-101104 (Drying blank)	--	4	--	--	0.0 g	92.6 g	DV 10-20-04	ML 10-22-04	1	22.2 g	20.5 g	21.9 g	21.5 g	DV 10-27-04 SAS 10-28-04
741-00019-198	LAB-BL14-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-22-04	1	43.5 g	38.8 g	41.2 g	48.2 g	DV 10-27-04 SAS 10-28-04
741-00019-199	LAB-BL15-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-21-04	1	45.0 g	41.4 g	46.9 g	43.0 g	DV 10-26-04 SAS 10-27-04
741-00019-200	LAB-BL16-101104 (Grinding blank)	--	--	--	--	--	--	--	ML 10-23-04	1	45.6 g	45.4 g	39.9 g	52.6 g	DV 10-27-04 SAS 10-28-04

## **Preparation of Soil Samples Quantitatively Mixed with Tremolite and Chrysotile Asbestos**

### **Equipment and Materials**

- NIST SRM Tremolite Asbestos
- NIST SRM Chrysotile Asbestos
- Local soil from Chatham County, NC
- Multi-speed blender
- Stirring utensils
- Metal drying pans
- Ultraviolet drying lamps
- Hot plate

Two batches of asbestos in soil were created; one batch contained 0.5% each of chrysotile and tremolite, and the other contained 2% each of chrysotile and tremolite. A total of one hundred grams was the target weight for each of the two sample batches. For the sample concentration of 0.5%, 99 grams of dried soil was weighed, and 0.5 grams of each asbestos SRM was weighed for mixing. In the case of the 2.0% concentration sample, 96.0 grams of dried soil was used and 2.0 grams each of the two asbestos types were weighed for mixing.

Once all components were weighed, 8 oz. of distilled water was poured into the blender jar and the two asbestos types were mixed on the highest setting for 30 seconds, the soil was then added and the components were blended together for another 45 seconds for the 0.5% concentration and another 60 seconds of blending for the 2.0% sample. Each of these wet mixtures was then poured into a drying pan and labeled as to their asbestos concentration and dried under heat lamps and on hot plates until completely dry.

The materials were then packaged into plastic vials and labeled according to their concentration. Aliquots from each vial were used to make quantitation slides for visual estimates and for point count slides. The results of quantitation are shown below.

Quantitation of Asbestos/Soil Mixtures		
Concentration	Visual Estimate Result	Point Count Result
0.5% Chrysotile + 0.5% Tremolite	0.47% Chrysotile 0.59% Tremolite	1.4% Chrysotile 1.2% Tremolite
2% Chrysotile + 2% Tremolite	1.85% Chrysotile 2.92% Tremolite	4.7% Chrysotile 3.9% Tremolite

Thickness differences between the soil matrix particles and the asbestos bundles are speculated to have caused the biased high results on the point counts.

**Production date: October 6, 2004**

**Produced for: Steve Remaley, Region 9 USEPA, telephone 415-972-3802, email Remaley.Steve@epamail.epa.gov**

**Produced by: Owen Crankshaw, RTI International, P.O. Box 12194, Research Triangle Park, NC, 27709, telephone 919-541-7470, email osc@rti.org**

	First filter Chrys.	Mid filter Chrys.	Last filter Chrys.	All filters Chrys.
	5	4	6	5
	4	4	4	4
	3	4	4	3
	4	4	5	4
	2	3	6	2
	3	7	3	3
	1	5	7	1
	3	3	1	3
	6	7	2	6
	2	1	4	2
	5	7	5	5
	4	6	4	4
	8	4	6	8
	5	2	4	5
	1	3	3	1
	5	8	8	5
	2	4	2	2
	8	1	7	8
	7	6	4	7
	5	5	5	5
				4
Total	83	88	90	4
Average structures/g.o.	4.15	4.4	4.5	4
Std. Dev. structures/g.o.	2.1	2.0	1.8	4
95 CI low structures/g.o.	0.0	0.4	0.9	3
95 CI high structures/g.o.	8.3	8.4	8.1	7
Ave. structures/mm <sup>2</sup>	446	473	483	5
95 CI low structures/mm <sup>2</sup>	0	46	92	3
95 CI high structures/mm <sup>2</sup>	894	899	875	7
				1
				7
				6
By grid (n=6)				4
Chr				2
	33			3
	50			8
	42			4
	46			1
	42			6
	48			5
Total	261			6
Ave. structures/10 g.o.	43.5			4
Std dev. Structures/10 g.o.	6.1			4
95 CI low structures/10 g.o.	31.4			5
95 CI high structures/10 g.o.	55.6			6
				3
				7
				1
				2
				4
				5
				4
				6
				4
				3
				8
				2
				7
				4
				5
			261	Total
			4.35	Average structures/g.o.
			1.94	Std. Dev. structures/g.o.
			0.51	95 CI low structures/g.o.
			8.21	95 CI high structures/g.o.
			467	Ave. structures/mm <sup>2</sup>
			51	95 CI low structures/mm <sup>2</sup>
			884	95 CI high structures/mm <sup>2</sup>

	First filter	Mid filter	Last filter	All filters	
Trem.	Trem.	Trem.	Trem.	Trem.	
	6	2	1	6	
	1	1	3	1	
	3	5	3	3	
	4	2	2	4	
	5	3	2	5	
	5	2	1	5	
	3	3	5	3	
	6	2	2	6	
	2	3	3	2	
	1	3	3	1	
	2	6	2	2	
	9	5	3	9	
	3	9	4	3	
	4	3	1	4	
	4	3	5	4	
	5	5	2	5	
	2	3	3	2	
	3	3	3	3	
	3	3	4	3	
	1	3	3	1	
				2	
Total	72	69	55	1	
Average structures/g.o.	3.6	3.45	2.75	5	
Std. Dev. structures/g.o.	2.0	1.8	1.2	2	
95 CI low structures/g.o.	0.0	0.0	0.4	3	
95 CI high structures/g.o.	7.6	7.0	5.1	2	
Ave. structures/mm <sup>2</sup>	387	371	295	3	
95 CI low structures/mm <sup>2</sup>	0	0	45	2	
95 CI high structures/mm <sup>2</sup>	819	755	545	3	
				3	
				6	
				5	
By grid (n=6)					9
Trem				3	
	36			3	
	36			5	
	26			3	
	43			3	
	25			3	
	30			3	
Total	196			1	
Ave. structures/10 g.o.	32.7			3	
Std dev. Structures/10 g.o.	6.9			3	
95 CI low structures/10 g.o.	18.8			2	
95 CI high structures/10 g.o.	46.5			2	
				1	
				5	
				2	
				3	
				3	
				2	
				3	
				4	
				1	
				5	
				2	
				3	
				3	
				4	
				3	
				3	
				196	Total
				3.27	Average structures/g.o.
				1.71	Std. Dev. structures/g.o.
				0.0	95 CI low structures/g.o.
				6.7	95 CI high structures/g.o.
				351	Ave. structures/mm <sup>2</sup>
				0	95 CI low structures/mm <sup>2</sup>
				717	95 CI high structures/mm <sup>2</sup>